Railway Age

APRIL 19, 1941

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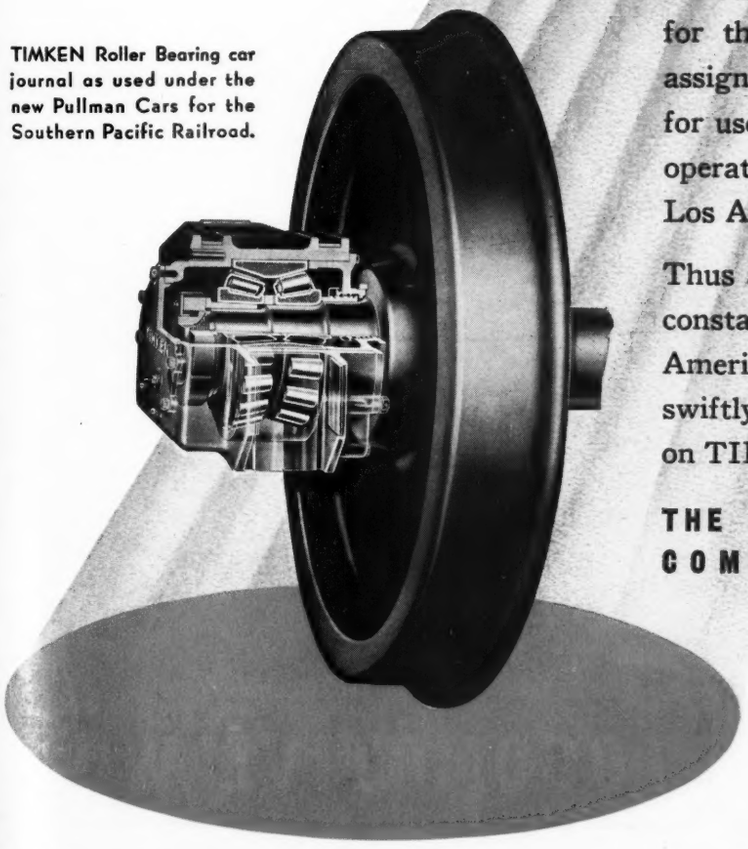
Southern Pacific's "Lark" Trains go on TIMKEN BEARINGS



TIMKEN Roller Bearing car journal as used under the new Pullman Cars for the Southern Pacific Railroad.

Twenty-six completely TIMKEN Bearing Equipped New Pullman Cars built by Pullman Standard Car Mfg. Co. for the Pullman Company have been assigned to the Southern Pacific R. R. for use in the two crack "Lark" Trains operating between San Francisco and Los Angeles.

Thus another ace of the rails joins the constantly-growing ranks of famous American trains operating smoothly, swiftly, dependably and economically on TIMKEN Roller Bearings.

THE TIMKEN ROLLER BEARING COMPANY, CANTON, OHIO

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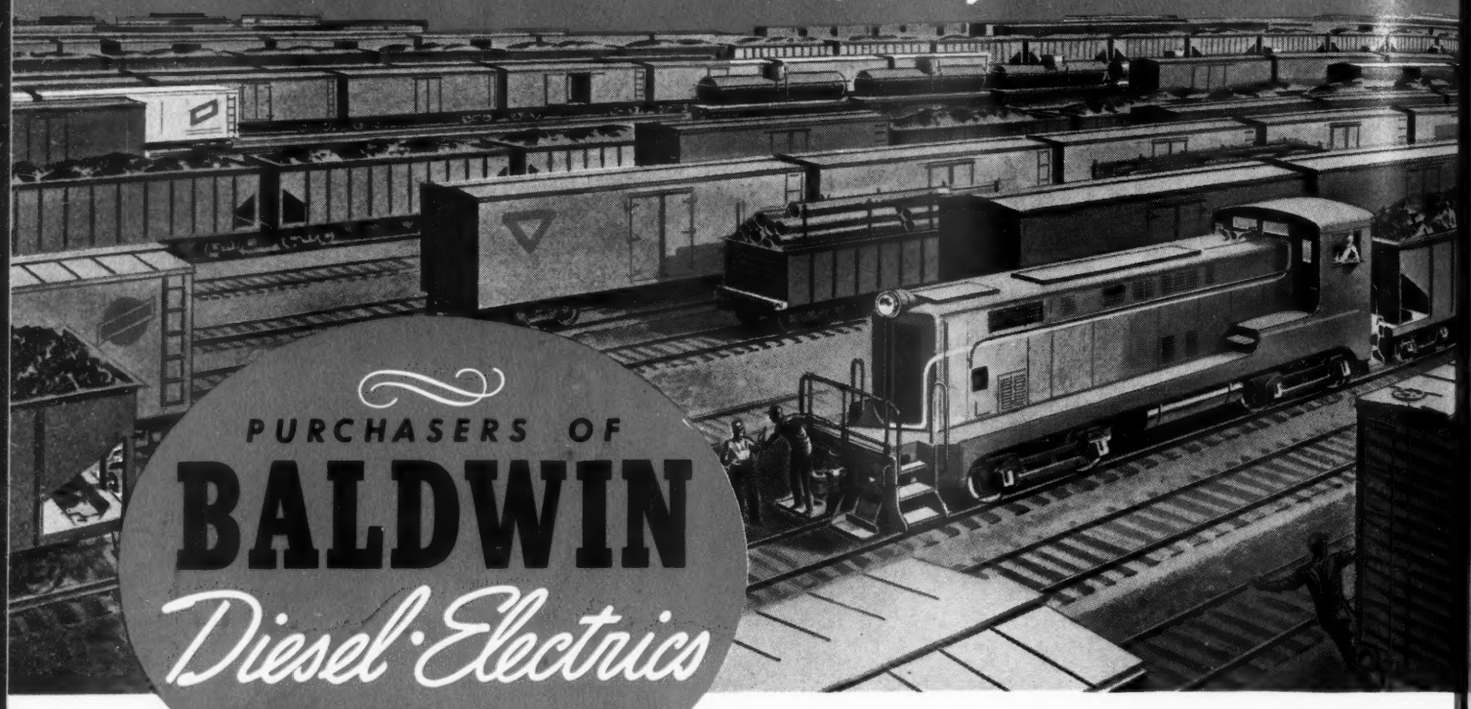
BETTER SERVICE—LOWER COSTS

... in Switching Operation



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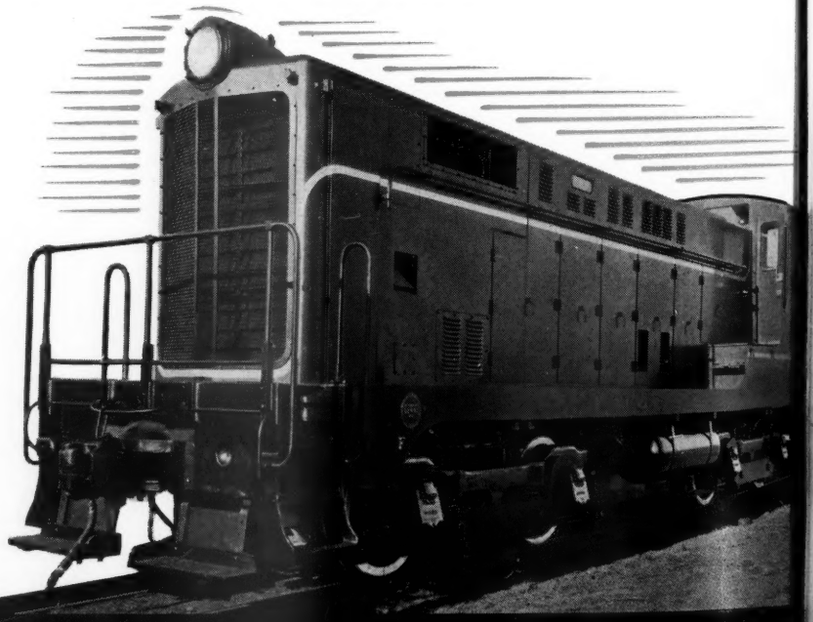

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In This Issue

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"Union" REMOTE CONTROL *Eliminates* DELAYS...

For Example... here's one case:

CONDITIONS:

1. Junction of single track branch line with double track main line. All switches at the junction operated by train crews.

2. Rearrangement of traffic caused a larger number of trains to be routed via the branch, causing delays. A continuous train order office is in the passenger station at "A."

THE PROBLEM:

Elimination of delay at the junction to branch and main line trains, with a minimum expenditure.

THE SOLUTION:

Remote control of the junction switch and the crossover, controlled from station "A".

RESULTS:

1. Train time saved by elimination of delays to branch and main line trains.

2. Train stops saved by power operation of switches.

3. Safety provided by interlocked signals and switches at junction and crossover.

And remember that "Union" Remote Control fits into a future program of Centralized Traffic Control.

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RAILWAY AGE

The Administration's Wars on Two Fronts

The national administration is trying to do three quite different things. These are, (1) provide for defense; (2) provide against an economic collapse during or soon after the war; (3) carry on both during and after the war an economic and social revolution.

We Can Unite on Defense—Not on Socialism

The first requires vast increases in production and government expenditures. An overwhelming majority of the people are in favor of these for the purpose of defense. For the accomplishment of (2) the administration evidently intends to rely upon government control of prices, at least while the expenditures for defense (or war) are being made—which many favor; and upon a large increase in government expenditures on public works as soon as the war is over—to which many are opposed. For accomplishment of (3) the administration relies on continuance even during the war "emergency" of large government expenditures for non-defense purposes and a great increase of them, as already stated, after the war; and on government policies designed drastically to curtail both during and after the war the share of the national income going to "profits" and large salaries, and correspondingly to increase the share of it paid for manual labor. Many of the people are opposed to these policies, and especially to their revolutionary socialistic purpose.

The administration has appealed to the people for united support during the present "emergency." How can it believe it can rationally expect or ask unity when, first, it is working for three objectives the means of attaining which, all experience indicates, cannot all be used effectively at the same time; and, second, has for one of its major objectives, if not for **the** major objective, a revolution which we know at least almost half of the people do not want? We know that almost half of the people do not want the revolution because they voted against it as recently as last November.

Both the defense program and all economically sound efforts to provide against an economic collapse after the war should have the support of all intelligent citizens who desire both protection of the nation from foreign military attack, and protection of its established political and economic institutions from either foreign or domestic attack. But such citizens cannot fail to see that the efforts still being made, and that the administration evidently intends to continue and encourage after the war, to promote socialistic policies—not only tend to destroy free private enterprise, but are incompatible with both the efforts to provide for defense and the efforts to provide against a post-war economic collapse.

Working Both For and Against Inflation

The efforts to prevent advances in prices have the economically sound purpose of preventing inflation during the war because, first, inflation would greatly increase the cost of providing for defense, and, second, probably would be followed after the war by a collapse of prices, if not by a general economic collapse. But the great expenditures for defense have a very strongly inflationary tendency. Add to them continuance of large expenditures for public works not contributory to defense, and also other large unnecessary government expenditures, and the inflationary tendency is enhanced. Add advances in wages, and the inflationary tendency is still further enhanced. For each of these influences, and especially all of them combined, tends to increase the demand for many or most commodities more than the supply and thus to force up prices. Even without the stimulation of big government expenditures on non-defense public works and for other unnecessary purposes, wholesale prices in this country increased an average of 60 per cent between 1916 and 1918 and of 80 per cent between 1916 and 1920—and then dropped 60 per cent from their top in 1920 to their bottom in 1921. And the monetary policies that the present administration has followed for eight years, and still has

in effect, are themselves vastly more inflationary than those followed in this country during the last war.

How much power would the government require to enable it to carry out both policies tending so strongly to cause an inflationary increase in prices, and other policies that would prevent it? It would have to have at least as much power as any totalitarian government now has, and exercise it with at least as much skill and ruthlessness; and it is extremely doubtful if even then it could prevent inflation. For there is no precedent for even any totalitarian government trying to carry out so many policies tending powerfully to cause inflation and also to prevent it.

Even Nazi Government Has Not Tackled So Much

Some of the bright young men of the New Deal are fond of saying that "we can do what Germany has done." Well, it is our understanding that the purpose of all the current defense expenditures and activities is to prevent any government, foreign or domestic, from doing here what the Nazi government has done in Germany and elsewhere. And, as a matter of fact, even the Nazi government of Germany has not tried to arm, to spend on socialistic public works, to allow use of every political and violent means available to force up labor costs in industry, and, **at the same time,** to prevent an inflationary advance in prices. Excepting her huge expenditures for arming and carrying on the war, the Nazi government has avoided everything tending to cause advances in prices; and it has avoided them expressly to prevent inflated prices from hindering or stalling its military program.

Nobody has ever heard, for example, of the Nazi government, either before or during the war, permitting and even encouraging strikes and violence for labor-union recognition, the check-off system and advances in wages in German industries producing even ordinary commodities, much less in industries producing armament. Quite the contrary. Such conduct by organized labor as the administration is tolerating and condoning in this country would have been treated in Germany, even before the war began, as treason or some other crime or crimes subjecting those participating in it to imprisonment in concentration camps and those leading in it to the ax. Of course, we are not advocating such dealing with labor here; we are not advocating any new labor legislation, but only strict and impartial enforcement of existing laws. We have cited what has been done in Germany only to emphasize how much less has been done by government there tending to cause inflation than is being done by government in this country to cause it.

Why Such Contradictory Policies?

If our government should succeed in preventing inflation, there would not necessarily be danger of an economic collapse after the war, ostensibly necessitating largely increased government expenditures on public works to "take up the slack." In spite of the inflation caused by the last war, and the collapse of prices in 1921, production and business in this country soon recovered and were larger than ever throughout the seven years 1923-1929, inclusive, although federal government expenditures were rapidly and greatly reduced. Why, then, is the administration following and planning such inconsistent and even incompatible policies as continuance of large expenditures on non-defense public works, as well as on defense, and encouraging increases in wages, all of which are inflationary; and then following a policy of trying to prevent the advances in prices which its other policies obviously tend to cause? Why is it planning a program of enlarged expenditures on public works after the war ostensibly to prevent **deflation,** when if its policy of controlling prices is successful there will be no previous **inflation?**

In view of all the available evidence, there seems to be only one rational answer to these questions. This is, that the administration and its radical supporters are fighting wars on two fronts—one against the axis powers abroad; the other against private enterprise at home. Consider all the socialistic policies the administration followed for seven years before it adopted its defense program. Consider the fact that it persists now in promoting such hugely expensive socialistic non-defense public works as the St. Lawrence "seaway." This project is an example of many that are obviously not, as the administration claims, a part of the defense program, because it could not be finished until 1948 and would meantime take hundreds of millions of dollars that should be devoted to real defense purposes. Consider the fact that the administration is following policies in dealing with organized labor, on the one hand, and business, on the other, that are inexplicable on any theory excepting that they are intended simultaneously to hinder increases in business profits and stimulate advances in wages.

Increases of taxes, advances of wages and control of prices tend, each of them, to curtail profits and when combined tend very powerfully to curtail profits. And the government is increasing taxes on net earnings and salaries, especially large salaries, and setting up machinery for drastic control of prices, while at the same time refraining from "cracking down" on labor unions for using violence, seizure of property and sabotage in support of their demands for more pay, even when these methods plainly and seriously interfere with the defense program.

All Except Defense Policies Are Socialistic

Excepting its expenditures for defense, there is hardly one of its policies that is not, for the long pull, inimical to private enterprise. The proposed expenditures on such projects as the St. Lawrence "seaway" would increase the taxes on private enterprise, increase government competition with it, and curtail its profits.

And the same is true of the program for enlarged expenditures on public works after the war. The policies of letting radical labor leaders—often communists—with almost no government interference incite labor to use every form of coercion to increase costs in industry, and of steeply graduating upward taxes on net earnings, large salaries and even medium salaries, while trying to keep down prices, also tend to curtail incomes from the private ownership and management of property.

We are told by administration spokesmen that there must be no "profiteering" during the war; and by that they evidently mean no earning of large, or perhaps even normal profits and salaries; for the administration is certainly doing nothing to prevent members of labor unions from profiting by the defense program.

"Abolition of Privilege" and the "New Order"

And, significantly enough, we are meantime having constantly dinned into our ears by supporters of the administration and other radicals that during or after the war "privilege" will be abolished and a "new order" established throughout the world. Hitler asserts that these are his objectives, too; and so does Stalin. Well, then, what do the phrases "abolition of privilege" and "establishment of a new order" mean when they are used in the United States by supporters of the administration's present and announced future policies? Can any intelligent person doubt, in view of what already has occurred in this country during the last eight years, and is still occurring, that they mean (1) an enormous increase in the power of government, (2) use of this power greatly to increase government ownership and management of property, and (3) its use all along the line to make incomes more equal—regardless of inequalities in work and ability? And against whom do the adoption and execution of such policies constitute warfare? Principally against the great middle class, consisting of many millions of persons having more-than-average incomes and owning the great bulk of the country's property.

Call the program "socialistic" or what you will, it plainly constitutes war upon the middle class of the United States conducted by and ostensibly in behalf of persons with less-than-average incomes, and by politicians of various kinds leading them for their own advantage. Thus, the middle class of this country is being called upon principally to finance and carry on one war against Hitler and his totalitarian policies abroad, and **another war for totalitarian and socialistic policies against itself at home.**

The Warning of France?

What, then, should the middle class do? It should support to the limit with its money, its man-power and, if necessary, its blood, every policy tending to protect this country from foreign attack. It should, at the same time, face the plain facts demonstrating the socialistic character and purpose of many policies of the administration, and oppose them with every lawful means at its command. We have and should have unity for defense. We have not, never can have, and never should have unity for defense **plus socialism.**

The people of this country should be warned by the example of France. The Socialist and Communist popular-front government of that country tried to do before the war exactly what the present administration

What Happened In France*

"In 1934 the street fighting of the sixth of February showed the gravity of the situation. It manifested itself again in 1936 when the seizure of the factories, workshops and stores alienated from the government a large number of the lower middle class who until then had supported it . . . *The invasion by force of private property* [*by strikers*] *awakened unpleasant emotions.* . . .

"You must not forget that France is a country of small tradesmen, of peasant owners, and not a country of proletarians. In the army it is the middle class, together with the country nobility, the school teachers and the priests, that supply the reserve officers. It is impossible for a French government to carry on war successfully without the support of the factory workers; *but no less impossible unless the middle class is with it,* and whole-heartedly with it . . .

"In France, for a long time, *the divorce between Parliament and the real leaders of the country in culture, business and labor* had been very nearly complete. Most of the professional politicians were lawyers who knew how to review a case but did not know how to act, and did not seem able to separate their personal practice from the business of the state . . .

"In France the working of the parliamentary machine was wholly thrown out of gear on the day when the Socialist Party, which had become the largest in Parliament, allied itself with the Communists. You can choose between a totalitarian philosophy and a parliamentary system, but you certainly cannot have both. *You could not expect the French middle class to accept as a normal event in government the assumption of power by men whose avowed program was the destruction of that very class.* From the moment when fear and passion *in both camps* became greater than the love of country, *French democracy was a house divided against itself* and no longer capable of winning a military victory."

* Quoted from "Tragedy In France," an eyewitness account by André Maurois. During the last war, M. Maurois was a lieutenant in the French army, and was attached as liaison officer to the British troops. When the present war broke out, he was appointed the French official observer attached to the British general headquarters. He knew personally the leaders of the French government, and at the beginning of June was sent on a mission to London. The armistice put an end to that mission. Italics are ours.—Ed.

in this country is trying to do—viz., combine policies of defense with policies of socialism. This combination of policies did exactly what we are contending and predicting it will do in the United States, if continued —curtailed and increased the cost of production, both defense and non-defense, promoted inflation, and split the nation into two warring factions. The middle class decided it had as much, or more, to fear from the Socialists and Communists of France as from Hitler. (See quotations from André Maurois' book "Tragedy in France," on previous page.) The result was complete disunity in the face of the enemy. And France fell. We do not predict that the United States will fall before a foreign enemy; but we do predict that its defense effort will be greatly weakened by inflation and dissensions among the people if the administration persists in its efforts to combine a program of defense and a program of socialism.

Thinking Up New Excuses for Truck Rates

For-hire motor carriers in the territory East of the Rocky Mountains have for several months been manoeuvering themselves into a position favorable to blocking the rate revisions, in preparation by the railroads to reflect the superior economy of railway transportation, wherever such superiority exists.

The contemplated railroad revisions take the form advocated by the Federal Co-ordinator of Transportation, but are less far-reaching than he proposed. They give a sound and specific answer to the criticisms of the present rate structure which the Interstate Commerce Commission has time and again voiced in recent years.

The motor carriers conceived the stratagem of cancelling all their rates which are lower than railroad rates. With their rates thus tied to those of the railroads, they might plausibly claim a vested interest in the railroad structure, entitling them to demand suspension of proposed changes therein. The only explanation advanced until recently for the truckers' move was their purpose to preserve the opportunity which the existing rate structure affords them to pick and choose "cream" traffic.

They have finally realized, however, that a better reason than the true one will have to be advanced for what they seek to do; so they are now issuing propaganda attempting to justify their proposed increases on a claim that their net revenue needs protection against higher operating costs. They neglect to take into account the failure of either their existing rates, or the new ones they propose, to give effect to their obligation under the law to assure the public the benefit of the "inherent economies and flexibilities" of motor transportation.

The claim of need for higher revenues would be difficult to sustain from the record. To illustrate, take the Central territory figures—typical of operating results throughout the country. Operating revenue per truck-mile for the first 9 months of 1940 was only one mill less than for the same period of 1939. It was 7½ per cent greater than the revenue per truck-mile for 1937. On the other hand, the cost per truck-mile for 9 months in 1940 was one mill less than it was in 1939 and increased only 3.77 per cent over 1937 compared with a 7½ per cent increase in revenue.

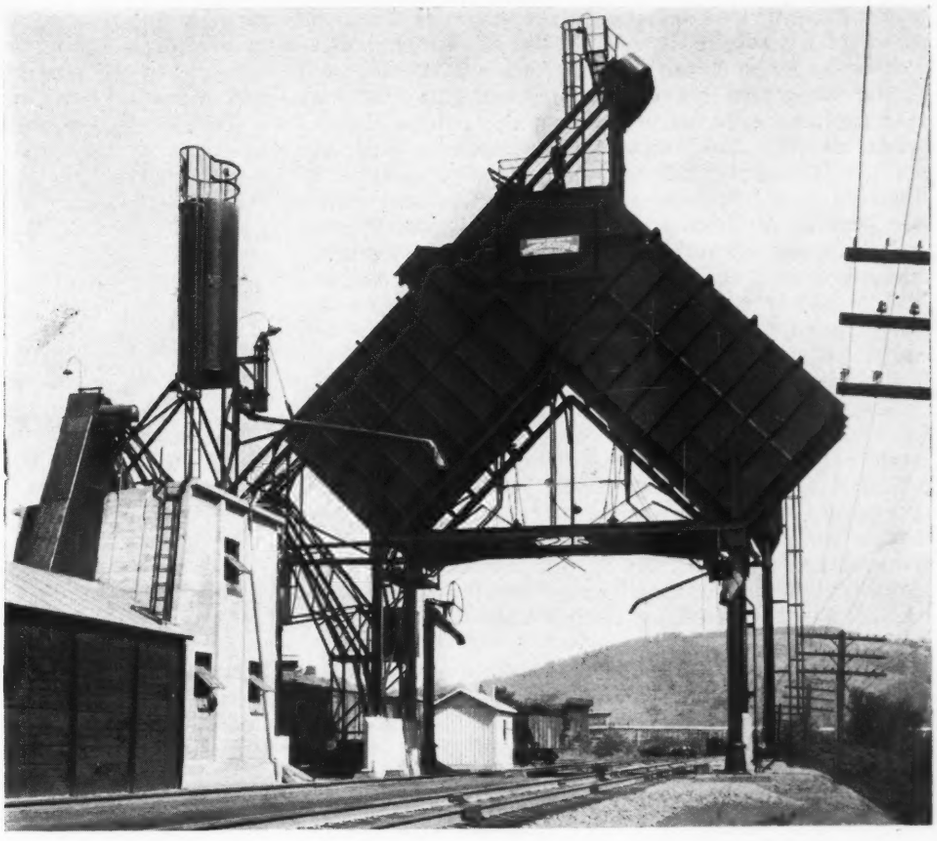
Because there was a smaller number of motor carriers reporting to the Interstate Commerce Commission in 1937 and 1938, a net revenue comparison of this period with 1940 (of like with like) is not possible, but a revenue comparison of 46 motor carriers having annual revenues of $1,000,000 in 1939, shows that net operating revenues were 700.8 per cent greater in 1939 than the net earned by these same carriers in 1937. We are advised that the 1940 reports of these motor carriers to the Commission have not been completely checked, but, based upon available information, it would not be at all surprising if these 46 carriers, and the motor carriers as a whole, continued to show marked increases in net revenue in 1940 as compared with 1939.

There is a factor in this picture which is more significant than any excuses given by the motor carriers for their position. This factor is that they have expanded their operations since 1935 by more than 50 per cent; and the Commission has raised the entire transportation rate structure "umbrella" 10 per cent higher, thereby widening the trucks' radius for gathering "cream" traffic. The transportation costs of the public have been increased by the amount of these rate increases on that part of the traffic which shippers could not divert to privately-operated trucks, or avoid shipping entirely by decentralizing or employing improved technical processes.

As a further indication of the trend, the A. T. A. loading reports for February show that truck traffic increased 29.2 per cent over the same period of the previous year, while A. A. R. reports show that carloadings increased only 16½ per cent. While the Defense Commission expects 1942 total traffic will exceed that of 1929, it believes that the railroads will be called upon to handle only 81 per cent as much in 1942 as they handled in 1929.

The continuance of present conditions constitutes a grave threat to post-war railroad traffic and employment. These conditions injure shippers and the consuming public, whose costs are increased to no useful social purpose. They mulct the taxpayers to provide constantly expanding highway facilities for freight traffic, which social economy requires should move by rail. They place the truckers in a position where they are exposed to ruinous deflation, once the public is awakened to the expensive (to the public) gas-bag upon which the long-haul trucking business has been erected.

The Interstate Commerce Commission is under no obligation to preserve satisfactory earnings to carriers unable to demonstrate the "inherent advantages" or public need of the service they are rendering.



The Storage Pocket of the New Coaling Station at Towanda, Pa. Is of All-Steel Construction and Incorporates the Tied-Arch Principle of Design. It Has Storage Capacity For 300 Tons

This "One-Stop" Coaling Station Has Distinctive Features

Characteristics of new plant on Lehigh Valley include wide flexibility, use of the tied-arch principle in the storage pocket, and automatic operation

By E. J. Cullen
Chief Engineer, Lehigh Valley, Bethlehem, Pa.

A NEW "one-stop" locomotive coaling station which incorporates a number of distinctive features of design and operation, has been constructed on the Lehigh Valley at Towanda, Pa., a point on the main line between Buffalo, N. Y., and Jersey City, N. J. Not only is this facility so designed and arranged as to permit locomotives to be completely serviced with coal, sand and water, and their cinders dumped, with one spotting, but it is capable of handling in this manner any locomotive, from the smallest to the largest, that is in service on this road. Because it permits locomotives to be completely serviced without detaching them from their trains, the new station, as described in more detail elsewhere in this article, is effecting substantial operating economies. Incorporating the latest devices and appliances for promoting automatic operation, as well as safety and simplicity, the new plant is efficient in operation and economical to maintain.

Briefly, this facility embodies a mechanically-operated coaling station with an overhead storage pocket which spans both main-line tracks, and is of structural steel construction throughout. It is of moderate size, having a storage capacity in the bins of 300 tons of coal, and was designed to fulfil the requirements of servicing 24 locomotives in each 24-hr. period, with sufficient flexibility to allow for any anticipated increase in traffic in the future. The facilities provided for each track include an ash pit, a water crane and a sand delivery spout, all of which are so located that they can perform their respective functions while coal is being delivered to the locomotive. The plant is arranged for handling both eastbound and westbound traffic, and is so located that the locomotives on westbound passenger trains can be serviced while the trains are standing at the passenger station.

While a number of plants have been installed previously, featuring the basic principle whereby coal, water and sand are taken on by locomotives while ashes are

being dropped, it is becoming increasing difficult to do so where it is desired to service the smaller engines as well as the larger locomotives that are in use today, and at the same time provide for developments that may reasonably be expected to occur in the future. In this connection the new station at Towanda is especially notable for its flexibility in servicing locomotives of different sizes. In the design of the facility, the respective locations of the coaling gates, sand valves and spouts and the water cranes were determined by a systematic analysis of the different sizes of locomotives that the plant would be called on to service. This was done by grouping all such locomotives within the range of the cinder hopper, and locating the other elements of the facility accordingly.

As the outcome of this analysis, coaling gates (two for each track) were installed, which have a service range allowing for a spread of almost 25 ft. over the tops of locomotive tenders. Similarly, by the application of equipment designed for a greater lateral movement than is required by usual practice, the service range for the sand and water delivery spouts permits an operating spread of 14 ft. An equal range for dumping cinders was obtained by installing Lehigh Valley type cast-iron cinder hoppers.

Because of the flexibility of the different units as described above, more leeway is available in spotting locomotives than is generally provided at coaling stations. This feature has special significance when it is considered that long freight trains are operated over this line, which make exact spotting extremely difficult. Thus the damage to equipment that is sometimes incurred when the exact spotting of long trains is necessary is minimized, thereby resulting in appreciable economies in this regard.

Design of Storage Pocket

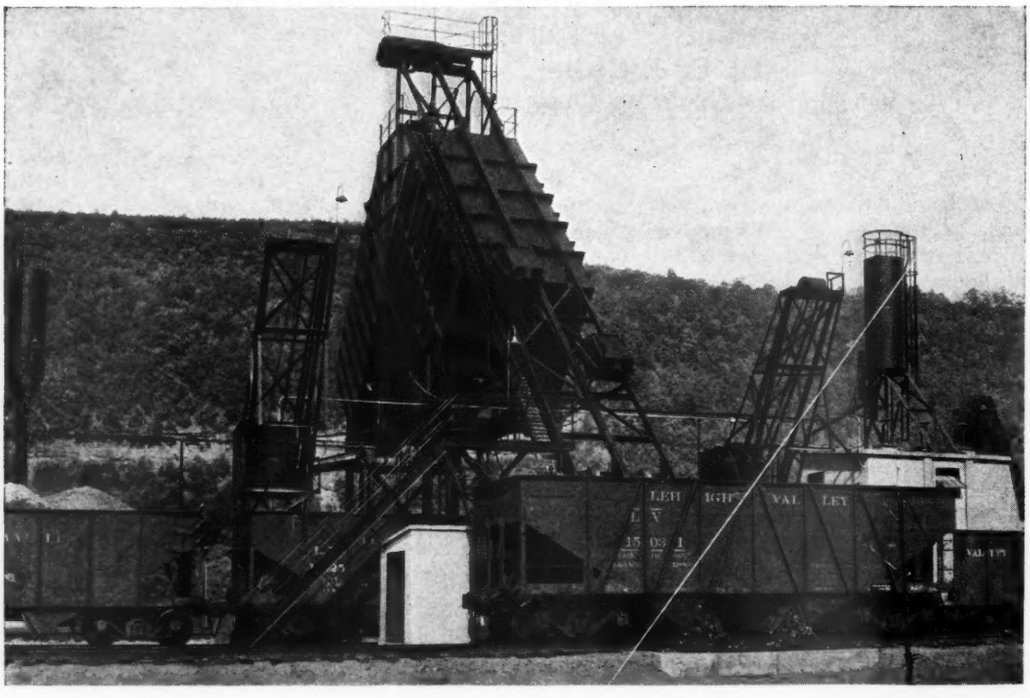
One of the notable features of the new station is the design of the overhead storage pocket. While at first glance the shape of the storage bin seems to differ markedly from the commonly-accepted orthodox design, it represents a modification of a trend that is familiar with its builders who have constructed stations of identical design in reinforced concrete. In appearance, the storage pocket gives the effect of two oblong boxes, rectangular in cross-section, that have been placed on edge and inclined toward each other, joining at their upper ends. The pocket spans the two tracks and is supported at each end on a structural steel bent carried on a reinforced concrete pier. At the level of the tops of the bents, the two sections of the coal pocket are tied together by structural steel members extending across the tracks.

Thus the pocket was engineered in accordance with the principle of the so-called tied-arch form of construction. Those portions of the pocket that overhang the supporting columns have the effect of concentrating the coal load directly over the columns, thereby reducing the moment forces and distributing them most economically. This was done with advantageous results, even with regard to the use of standard shapes of sections and plates in the construction, while at the same time a pleasing clean-cut appearance was obtained.

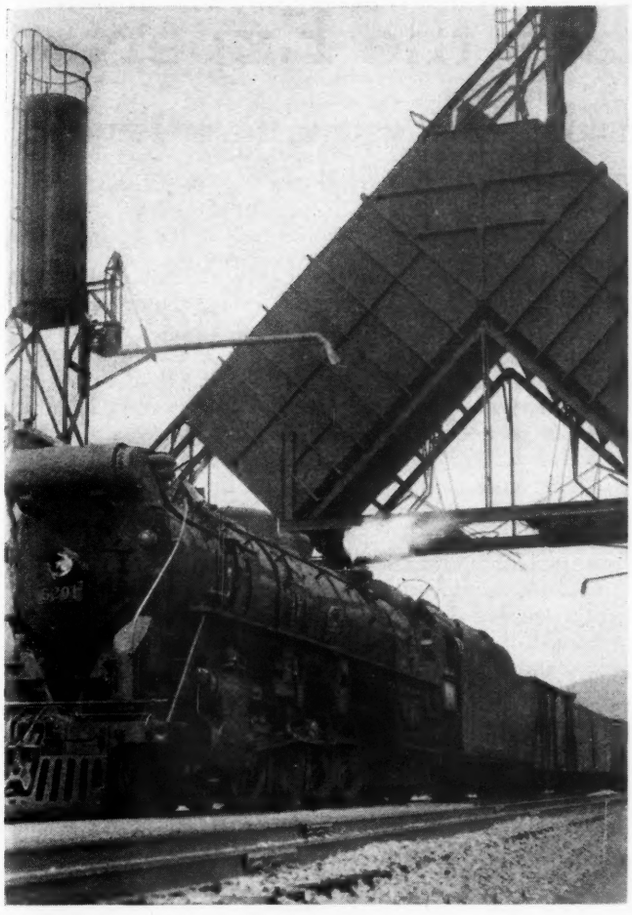
Merits of Design

This design not only embodies structural soundness, as may easily be perceived by analyzing the load distribution as transmitted to the members, but it also has merits from an operating point of view. For instance, breakage is minimized when coal is delivered into a bin at low elevation. This is likewise true when the coal is stored in large quantities immediately above the coaling gates, which, in addition, not only prevents the freezing of the coal but also eliminates the necessity of using chutes of comparatively small dimensions. This is not all, for when coal is delivered to a bin at a low elevation, the applied horsepower required for elevating any measured quantity of coal is correspondingly small. To put it another way, the elevating capacity of a given amount of power is correspondingly large—resulting either way in a saving per ton of coal hoisted.

Essentially, the construction of the pocket embodies metal plates stiffened and reinforced by means of structural shapes. It is apparent that the plates serve both as a means of confining the coal within the bin and also as supporting and carrying members. For this reason



Side View of the New Plant, Showing the Two Crane - Type Cinder Plants and the Two Cylindrical Dry Sand Storage Tanks, of Which the One at the Right Is Mounted on the Sand - Drier House



The New Station Is Capable of Handling Any Locomotive In Service on the Lehigh Valley, From the Smallest to the Largest

the plates used (consisting of Mayari R iron) were selected with respect to their structural strength, wearing qualities and resistance to corrosion. The steel sections comprising the bin reinforcement, the supporting structure and the bucket guides are of carbon steel having a minimum thickness of $\frac{5}{16}$ in.

Coal is elevated to the storage bin by two counterbalanced skip buckets of the Simplex automatic type, and is delivered from the storage pocket to locomotives by four Universal under-cut type coaling gates and sway aprons, two of which serve each track. The skip buckets operate automatically, being started by a push button, and are stopped in their hoisting cycle by a bin-capacity switch as soon as the storage pocket has been filled to capacity.

Sand Facilities

The sanding facilities include two 10-ton storage tanks with 5-in. sand valves and telescoping chutes. One of these tanks is supported on an independent pipe column, while the other is located on the roof of the sand-drier house. The facilities include a wet-sand storage building with a capacity of 300 tons, from which wet sand is raised to a bin in the sand-drier house by a bucket elevator. From this bin the sand flows by gravity to three stove driers of the Perfection type. The dry sand passes over screens to a sand-elevating drum, from where it is transported by compressed air to the dry-sand storage tanks. Bin-capacity switches installed in these tanks indicate to the operator when full storage has been reached.

The facilities for handling cinders consist of two crane-type single-track plants, both of which deliver cinders to cars spotted on a track located on the south side of the main tracks, where it is spanned by the skip-hoist runways leading to the overhead coal storage bins. To make this arrangement possible, it was necessary to install the cinder conveyor for the westbound track in a tunnel that passes under the eastbound track. The cinder plants are manually controlled with automatic terminal stops.

Incidentally, because of the fact that the new station is equipped with the latest automatic features, the operator, in addition to handling the operation of the various units and performing necessary maintenance and repair work on them, has time in which to attend to other duties.

As noted previously, the cinder hoppers are of the Lehigh Valley type. In this type the hoppers are of concrete construction and are lined with $\frac{3}{8}$-in. cast-iron plates. Each hopper has a sprinkling system by means of which the ashes are wet down before they pass into the bucket that elevates and dumps them into the cinder car. Also, a hose line is provided by means of which locomotive ash pans can be flushed out when cinders are dumped. This line delivers water at a pressure of 75 lb. per sq. in., and a booster pump was installed in the supply line from the locomotive water storage tank to produce this pressure. The water cranes at the new coaling station are existing units that were relocated and provided with longer spouts.

Operating Economies

The provision of this new coaling station was undertaken in the belief that rapidly changing operating conditions and requirements have created a compelling need for the establishment of one-stop stations for servicing locomotives on the main track, thus making it unnecessary for them to enter engine terminals for servicing, with the resulting delays and other expenses. Previously to the establishment of this facility, there were no main-track coaling stations in use on our main line between Buffalo, N. Y., and Jersey City, N. J. In other words, all locomotive servicing facilities were located at engine terminals generally situated some distance from the main line, thus requiring that engines on our passenger trains, as well as on our fast freight trains, be changed enroute. Obviously, therefore, considerable expense in labor and fuel were incurred as a result of the necessity of maintaining standby locomotives ready for service at points where engines were changed.

450 Miles Without Changing Locomotives

As a result of the installation of the new coaling station at Towanda, it is now possible to operate our freight and passenger trains straight through between Buffalo and Jersey City, approximately 450 miles, without changing locomotives. All requirements for the servicing of these locomotives are fulfilled during the one stop at Towanda without, of course, detaching them from the trains. The benefits thus accruing to the railroad include a reduction in the number of freight and passenger locomotives that are needed for the service, a material increase in the daily mileage per locomotive, and a reduction in the standby losses of fuel as well as in the fuel consumption per thousand gross ton-miles and per passenger-train-mile.

The general contract for providing and erecting the coal-storage pocket, the cinder-handling plant and the sanding facilities was held by the Roberts and Schaefer Company, Chicago.

Safety Sec. Quizzes the Experts

In convention at New Orleans, La., a new plan of getting the message of authorities to the audience has successful trial

THE 21st annual meeting of the Safety Section of the Association of American Railroads, held at the Hotel Roosevelt, New Orleans, La., on April 8, 9 and 10, was conducted on an entirely new plan. With Chairman D. H. Beatty, superintendent of safety of the Southern, presiding, the committees not only presented reports but constituted panels of experts, as in certain national radio quiz programs, answering questions from the membership as a whole. Another unusual feature was the absence of formal speeches. The 335 members and guests in attendance, representing 62 railroads, voted the plan a complete success and its continuance next year was recommended by C. F. Larson, superintendent of safety, Missouri Pacific, chairman of the resolutions committee, and unanimously adopted.

In opening the meeting, Chairman Beatty reviewed the progress made in reducing accidents, which was supplemented by a reading of I. C. C. accident statistics by L. G. Bentley, superintendent of safety, Chesapeake & Ohio, who stated that today travel by rail is more than 21 times safer than any other form of transportation. Mr. Bentley also presented the report of the committee on education. The constructive work of this committee was indicated by a striking display of safety posters, recently issued, in the convention hall. These posters were remarkable for their improvement over anything that has been done before along these lines.

At a luncheon on Tuesday, the section was welcomed on the occasion of its first meeting in the South by J. J. Elder, executive assistant to the president of the Louisville & Nashville.

By courtesy of the L. & N., the members attended an entertainment on Wednesday night, the chief feature of which was a pageant entitled "The Spirit of Safety" presented by the L. & N. employees.

The new officers for the coming year are: Chairman: P. F. Buckle, superintendent of safety, C. B. & Q.; vice-chairman: O. F. Gnadinger, supervisor of safety, E. J. & E.

Highway Crossing Accidents

In conjunction with the committee report on the prevention of highway crossing accidents, R. C. White, assistant general manager, Missouri Pacific, said that the trend of such accidents was still upward, despite the elimination of many crossings and the installation of warning signals on numerous others. He attributed this to lax supervision of motorists, many of whom drive cars in such bad shape mechanically as to constitute definite hazards.

Chairman O. F. Gnadinger, supervisor of safety, Elgin, Joliet & Eastern, stated that 1940 showed an increase over 1939 of 17.9 per cent in crossing accidents, 29.8 per cent in fatalities and 16.4 per cent in injuries, the total casualties amounting to 6,470 persons. He pointed out, however, that the 1940 record was much better than those for either 1937 or 1929.

The report continued:

"At first glance the records for 1940 may cause some discouragement, but we must take into consideration the fact that throughout almost the entire year railroad operation was more nearly on a par with that of the years 1928 and 1929. There was a large increase in the number of trains operated, and it is only natural that the resulting increase in train mileage should have some bearing on the increase in accidents. It also is a fact that there was a large increase in the number of motor vehicles in use and in travel over our streets and highways.

"Therefore, taking these factors into consideration, we should not become disheartened. On the other hand, we should consider 1940 as an indication of what we may have to contend with during the current year, and increase our activities in the campaign to reduce accidents in this class. Approximately 39 per cent of all fatalities arising out of railroad operation come within this category, and we can hope for a reduction only through the combined efforts and co-operation of every railroad safety and operating officer, and the education of all drivers of motor vehicles to be on their guard at all times when crossing railway property at grade.

"During 1940, automatically-controlled highway-railroad crossing protection was installed at 1,257 crossings, using 3,006 units of protection equipment, as compared with 1,019 crossings and 2,385 units in the year previous. The widespread adoption of automatically-controlled gates as an effective means of crossing protection is indicated by the installation of 321 gates in 1940, as compared with 291 in the year previous. There has been a tendency recently for Congress and the courts to recognize that the problem of separating railroad grade crossings is a public problem of much greater interest to travelers on the highways than to the railroads."

Law Enforcement

"The last year has evidenced growing interest on the part of law enforcement agencies in the enforcement of laws governing conduct at highway grade crossings. Herein lies a partial solution to this problem, and we recommend that all safety officers give this matter full consideration, and endeavor to enlist the interest of the agencies in their respective localities. What we have in mind is that nearly all states have laws governing conduct of drivers in approaching and passing over grade crossings, and that the enforcement of these laws is just as important as other traffic laws or regulations. Signals at crossings are traffic signals and should be respected as such.

"The increase in accidents in 1940 should be taken as a warning of what to expect in 1941 and in future years unless we redouble our efforts towards combating this problem. Otherwise the gains made in former years may be taken from us. Loss of life and injuries to persons are, of course, the first and most important considerations in connection with this problem, but there are other matters to be considered. Each accident results in a monetary loss to the railroad. Each accident causes a delay in the movement of trains. There never has been a time when the country has been more dependent upon its railroad transportation system. Safe operation is more essential than ever before, not only with respect to human life and limb, but also with re-

spect to those materials and commodities that today are so necessary to the safety and security of our country."

The principal subjects discussed in the quiz program following the reading of this report concerned the state laws regarding the duties of enginemen; physical conditions at grade crossings and the value of investigation of such accidents. Co-operation on the part of law enforcement agencies and the steam railroad section of the National Safety Council, as well as the annual careful crossing campaign, were also discussed.

Train Accidents

Prefacing the report of the committee on train accidents and their prevention, R. C. White, assistant general manager, M. P., said that a successful program for the prevention of train accidents must start at the top and that proper leadership, particularly with respect to new men, is essential to such a program. "The leaders," he said, "must be able to obtain cheerful compliance with the rules. Knowing the rules is not enough; the men must know how to function properly under the rules." Mr. White said that the supervisor's job is harder today than ever before and he needs all the assistance the safety officers can give him. He also expressed the opinion that, on most railways, the period of student training is not long enough. He recommended that the safety officers keep their superior officers completely informed as to their work.

Chairman F. W. Curtis, superintendent of safety, Denver & Rio Grande Western, submitted the following report:

"During the last 17 years, train accidents on American railroads have decreased remarkably. In 1940, the number dropped 73 per cent below the 1923 figure, and resulting damage to railway property also shows nearly an equal decrease. There have been some ups and downs, for the number of train accidents has borne a noticeably sympathetic relation to the number of locomotive miles for any calendar year. The most important reduction appears in the number of casualties resulting from train accidents during this period—5,570 in 1923, and only 1,898 in 1940, a reduction of 66 per cent. Railroad men have always looked upon train accidents that were preventable as a direct reflection upon their ability; therefore, they are proud of the improvement made and jealously guard the reputation thus attained.

"A 15-year trend from annual records at five-year intervals, presents a very encouraging picture in the control of train accidents. This is evidenced by the reduction from 12.96 to 4.90 in the frequency rate, the total damage drop from 23 to 9 million dollars, and the decrease in unit cost from 13.5 to 7.7 cents per each 10 locomotive and motor train miles run. However, the amount of property damage per accident trends upward. Here we have an increase of approximately 50 per cent in severity. In other words, the average of approximately $1,000 per accident in 1924 grew to $1,585 in 1939. The probable causes for this are many and varied. Reduced to its simplest terms, every effort to prevent train accidents today is justified by a unit financial saving one-half greater than was the case 16 years ago.

"In recent years there has been a noticeable increase in the proportion of train accidents attributable to so-called negligence of employees. In 1939 for the first time there were more train accidents caused by employee negligence than by equipment failures. The obvious conclusion is rather disturbing and is causing considerable concern.

"Of the last 60 accidents reported by the I. C. C., 45 were caused by employee negligence as follows:

I. C. C. Case No.	Cause	No. of Acc.	No. Kld.	No. Inj.
1801	Excessive speed in yards or permissive blocks	9	12	56
1819	Joint failure to protect and disregard of signals	9	3	388
1109	Failure of crew to obey train orders	4	45	38
1401	Total failure to flag	3	3	131
1701	Switch set in wrong position	3	4	50
1802	Excessive speed in violation of orders	3	32	55
1107–1810	Overrunning meeting point	3	4	43
1208	Disregarding stop signals	2	4	2
1809	Failure to clear superior trains	2	0	10
1106	Misunderstood train orders	1	2	26
1207	Improper display of fixed signal	1	0	2
1209	Disregard of caution signal	1	0	10
1211	Disregard of switch signal	1	2	0
1813	Occupying main track without authority	1	1	1
1841	Failure to keep proper lookout	1	2	1
1844	Improper handling of locomotive	1	0	8
	Total, these causes	45	114	821

"This study indicates that 22 of the 45 cases tabulated occurred in automatic block territory, 17 of which were collisions. The other 23 accidents were in non-automatic block territory, 19 of which were collisions. Assuming the 60 accidents studied to be representative of the 1940 performance, about half of the man failure accidents occurred in automatic block signal territory, and four of each five man failure accidents resulted in collisions, and three of each five major accidents were collisions. The inescapable conclusions are that better flag protection and better compliance with signal indications and with speed restrictions are essential to an improved train accident record."

Questions in the quiz program dealt with the proper selection, training and installation of new employees; the most effective system of re-examining employees on operating rules; and the methods for examining maintenance of way foremen periodically on operating rules, particularly motor car rules. Other subjects discussed were the checking and enforcing of speed regulations and of rule 93, as well as the most effective way to get desired results from efficiency tests.

Uniformity in Records

Chairman C. E. Hill, general safety agent, N. Y. C., presented a detailed report on uniformity in accident reporting, indicating that there was much to be done in this regard. Chairman J. R. Tenney, superintendent of safety, W. M., in reporting on a uniform safety code, stated that the transportation section of this code has been finished, but that the uniform code of safety rules governing maintenance of way employees had been rejected by the general committee of the Engineering Division, A. A. R., as being too complex. None of the proposed rules was rejected as not being good safe practice, but a shorter and less detailed code was suggested.

The quiz program brought out the following discussions:

How can safety rules be used as a basis of safety education?

Should they have equal importance as operating rules?

Should discipline or moral suasion be relied upon for enforcement of safety rules?

How should periodical examinations in safety rules be conducted?

Train Service Accidents

T. J. Quigley, terminal trainmaster, Illinois Central, made a brief talk on the practical aspects of train service accidents from a trainmaster's viewpoint. Chairman E. L. Henry, superintendent of safety, C. & N. W., then presented a detailed report, replete with statistics, on such accidents. He expressed grave concern at the prevalence of such accidents and suggested several val-

uable measures for reducing certain types of mishaps included in this category. At least five means for avoiding each type of train service accident listed were given.

The quiz concerned itself with employees riding footboards of engines; the reduction of accidents occurring in getting on and off cars and locomotives; and the proper coupling and uncoupling of equipment. Considerable discussion regarding the use of clubs in operating hand brakes developed the fact that proper handbrake maintenance and an attendant reduction in the use of clubs are effective in cutting down the number of such accidents.

Accident Statistics

Chairman T. H. Carrow, superintendent of safety, Pennsylvania, rendered an illuminating translation of accident statistics in practical application of safety principles. "Accidents remained stationary in 1940," Mr. Carrow said, "the rate of 6.7 casualties per million manhours was exactly what it was for the previous year, despite the increase in traffic and the many new men in service. In 1923, there were 152,000 casualties as compared with 18,000 in 1940, a decrease of 88 per cent—far more than the decrease in man hours. Perhaps safety men should congratulate themselves on this record, but they should also remember that safety should not be static—cannot be static."

Mr. Carrow pointed out the preponderance of train and train service accidents over all others and said that safety men should master the technique of preventing such accidents as they have of other accidents. "Train service is not inherently more dangerous than other railway jobs. It is only that it is far more difficult to contact these men and inculcate safety. It can be done—as has been proved on certain railroads."

Mr. Carrow presented an analysis showing how statistics may be used in ferreting out weaknesses. The safety man, he claimed, should study statistics and specific causes as a doctor would diagnose disease and attack the danger spots accordingly.

Trespassing and Non-Train Accidents

Chairman P. F. Buckle, superintendent of safety, C. B. & Q., presented a detailed and specific report on the difficult problem of preventing accidents to trespassers. The statistics show a reduction in trespasser casualties in 1940 of 11.2 per cent, the best showing having been made in the age group of 14 to 21, with a 23.9 per cent decrease. The statistics show again that in years of industrial activity and consequent reduction in unemployment, trespasser deaths invariably show a decline. Various railway police officers, including W. I. Spitler, chief special agent of the C. I. & L., who delivered a brief talk on the subject of trespassing, sat with the committee. Mr. Spitler said that one of the chief agencies in controlling trespassing by children is the juvenile aid department formed in many metropolitan police forces. He recommended thorough co-operation with such agencies, pointing out that child trespassing is essentially a social rather than a criminal problem. He said that the Monon was achieving good results by satisfying the natural curiosity of children by conducting escorted tours through shops and roundhouses.

The quiz developed discussion of methods of securing co-operation from local police and judges; reaching parents and educational authorities; and co-operation between the protective and safety sections.

O. F. Hark, general master mechanic of the N. & W., described methods used on that road to reduce accidents in handling heavy materials. Chairman W. J. Flannigan, superintendent of safety, N. P., presented a statistical report showing, among other things that, while fatalities in this classification showed a decrease in 1940, injuries showed an increase. Even so, except for 1935, last year had the best record since 1928.

The quiz stressed the importance of supervision in preventing falls; also the importance of periodical physical and rules examinations for maintenance of way, equipment and station employees. The question of safety shoes and other similar equipment was also discussed.

The discussion with regard to the safe operation of track and inspection motor cars was led by D. W. Naff, safety agent, N. & W. He stated that the need for such rules in the Standard Code was unquestionable, but that additional safety rules should be promulgated by each railroad to cover its local conditions. Speaking for the N. & W., he stated that motor car accidents had been analyzed and classified and new rules drafted accordingly.

Specifically, he cited the following: Trailers should not be attached except by standard couplings, consisting of a flat bar with a clevis at each end and specially designed pins; speed of motor cars at grade crossings must be reduced so that a positive stop can be made; employees must not place their hands on or about the friction belts while cars are in motion; all motor cars on which tools are carried must be equipped with tool trays; all cars requiring cranks must have non-detachable cranks; all cars handling gangs must be equipped with safety rails, front and rear.

Mr. Naff stated that accidents have also been reduced by current and careful inspection of motor cars, particularly as to brakes; by instructing employees as to proper position for lifting cars on and off the rails; the provision of proper lifting bars; and insisting that all track foremen have and use wheel gages.

Safety Publicity

Inspired by a sentence incorporated in an address by Elmer T. Howson, western editor, *Railway Age,* at the meeting at St. Paul in 1940, a round table discussion was held on: "A good record for safety constitutes the strongest claim a railway can offer in seeking public favor and patronage." The importance of safe and dependable freight transportation to the national defense program was stressed. Methods used in bringing the railways' remarkable safety record before the public were discussed and it was the consensus of opinion that not enough stress has been laid on this point.

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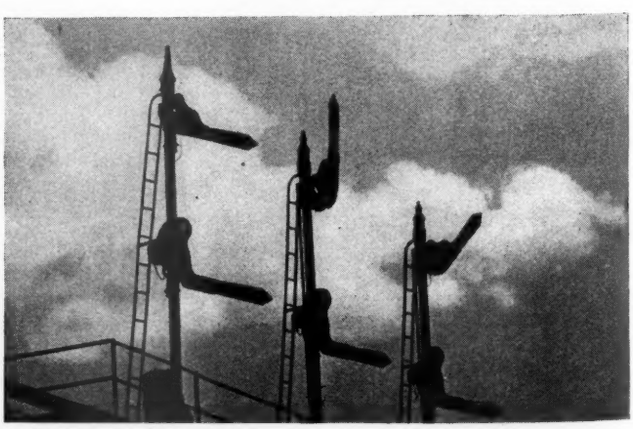


Photo Courtesy Franklin Cleveland

Semaphore Signals in Multiple-Track Territory Show Their Individuality

Automatic Spot Welding in Freight-Car Building*

Arc welding of complete roof and side frames is followed by welding of sheets in automatic spot welders

By John W. Sheffer,

Electrical Engineer, American Car and Foundry Company

WELDED construction of cars is not new, but it has had a slow growth. Our company built four welded tank cars back in 1908. These cars were gas welded and for welding electrodes we used scrap trimmings from the plate material used in the construction of the shell and heads. They were for Peru, S. A., and to the best of our knowledge have given satisfactory service.

First Spot-Welded Freight Car in 1911

At the South St. Louis plant in 1911 the American Car and Foundry Company built the first spot-welded freight car, with welding equipment of their own manufacture. A few rivets were used in the car, but only for the purpose of holding the erected members in place during the spot-welding operation. This method of holding the parts was used instead of jigs on account of the savings in cost, as only one car was built. This car was C. B. & Q. No. 71699 and had an official inspection with report in 1925. This report indicated the spot welding stood up to full expectation.

Over 25 years ago, to meet special applications, the company designed and manufactured more than 15 spot welders, several of which were portable. These were the first applications and use of portables. There were no such welders on the market.

During the twenties, welding became more and more extensively used, but it was still confined to car parts and miscellaneous products. Some of the welded items were at the junctions of window stooling, deck sills and plates, door sills and headers, partitions, etc. The fusing of welded wire nails to the inside of the sheathing to form fasteners for the application of insulation was one of the early applications of butt welding.

During the early Thirties this builder made five 50-ton gondola cars for the Chesapeake & Ohio. These cars were equipped with one-piece cast-steel underframes. Floors and superstructures were of welded construction. Later in the same year, a similar car was built, but with a structural-steel riveted underframe, the floors and superstructure being assembled by arc welding. These cars were placed in heavy service, were carefully watched, and the latest reports are very favorable toward arc welding.

Automatic Arc Welding

Since 1932, the American Car and Foundry Company has been building covered hopper cars for various commodities such as cement, carbon black, as well as other dry commodities. Without welding, it would have been impossible to have attained the smooth interior necessary for the discharge of the lading. At the present time, these covered hoppers are manufactured in quantities in which the whole car body is welded. There is approximately 1,100 ft. of arc welding on this covered-hopper body, of which one quarter is on the hopper sides, which may be done automatically in sub-assemblies.

The use of automatic arc welding arises from the desire to obtain greater economy in labor and material, more uniform results, greater operating factor, higher welding currents which in turn measure greater production, and reduced fatigue on the operator. Automatic arc welding is particularly adapted to high-production welding where there are a large number of similar operations or where there is enough footage of the same type of welding to justify it, in which case a fairly expensive holding or clamping fixture can be justified.

Two of our shops manufacturing hopper cars are equipped with thyratron-control, automatic arc-welding equipment, using lightly coated coiled electrodes. This is a special application on the welding of hopper-car side stakes to the sheets which act as stiffener members to those sheets and become integral with the car side frame.

Evolution of Automatic Spot Welding

In 1934, this builder designed spot-welded passenger cars of high-tensile low-alloy steel in which the exteriors of the cars were smooth. Two trains of these cars were delivered in 1935 and a third train in 1937. These trains were complete with Diesel-electric power cars. I refer to the Rebel trains running on the Gulf, Mobile & Northern between New Orleans, La., and Jackson, Tenn.

I call this construction to your attention because it is a step in the development of spot welding on a production basis. We call it the panel-section type of spot-welded construction. The roof and sides were built up to 9-ft. 6-in. sections and assembled on the car by means of rivets through the vertical flanges of the side-post angles.

A specially built vertical-gap spot welder was located in a pit at the final spot-welding position, for attaching the side sheathing to the side sills. In these cars the underframe was completely riveted. Thus, we have passenger cars with a riveted underframe, separate panels for sides and roof of spot-welded construction, and final assembly of the three sub-assemblies by spot and arc welding and riveting.

As is usually the case, after the cars were delivered the next step was a study of improvements in production to determine what could be done to reduce the cost. The

* From a paper presented before the St. Louis, Mo., Section of the American Welding Society, April 11, 1941.

conclusions from the studies made were: first, if feasible, spot weld a complete side and complete roof with a machine capable of making welds both simultaneously and consecutively, and, second, assemble these units finally into a complete shell by concealed rivets.

Production-Welding of Freight Cars

During the year 1940, at our Madison, Ill., plant, equipment was installed and 400 lightweight box cars were produced of welded construction. The weight saving is over three tons per car.

Arc welding is now universally used in the assembly of the A. A. R. Z-type freight-car center sill. In fact, owing to the wide variations in the thickness of the sections used for the various members in the car underframe, arc welding has become the preferred method of assembly. However, accurate preparation is most important, so that excess weld metal is not required. There is but one seam that may be welded automatically; the others are too short to justify a set-up.

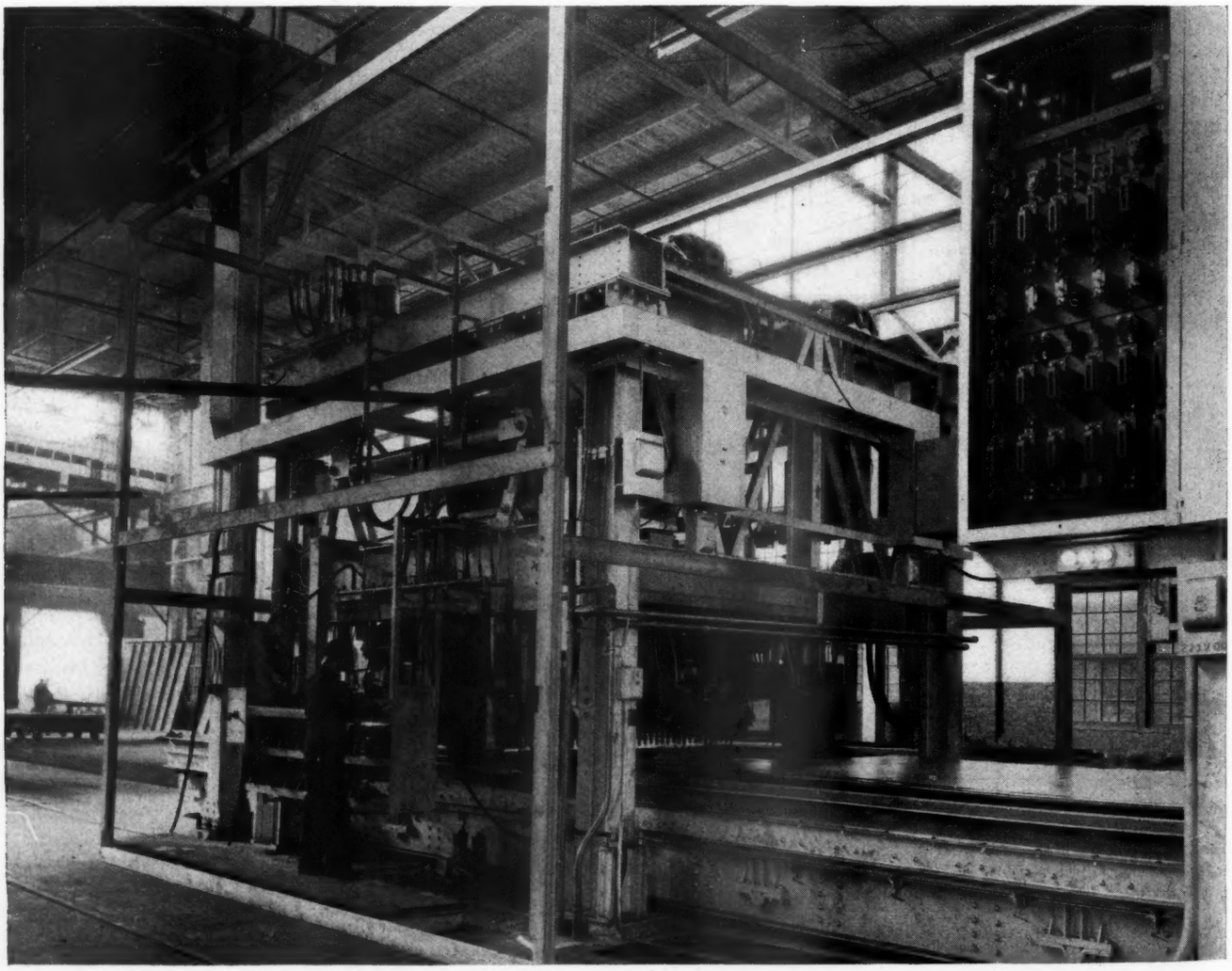
The unit system of fabricating underframe, sides, roofs and ends of freight cars by welding in jigs apart from the main track assembly permits positioning for horizontal arc welding when required and accessibility for more careful work and inspections. The final assembly by rivets of these main sub-assemblies in track production lines facilitates the desired output and secures economies in repairs at some future date.

The Automatic Spot Welder for Car Sides and Roofs

In fabricating the roofs and side units, spot welding is performed by special multiple spot-welding machines. This development in multiple spot-welding equipment, through the use of a multiple distributing switch in the secondary or heat-generating circuit, permits the entire group of electrodes to be put under pressure simultaneously. These electrodes act as a self-contained clamp at each weld location. They remain in that position through the entire cycle of individual electrode welding sequence. The facilities for applying the correct amount of pressure on all electrodes simultaneously and having them dwell until the various welds are sufficiently cool produce a clean, strong and uniform weld.

There are two of these automatic multiple welding machines, one for car roofs and one for car sides. The panel welder for roofs has two welding jig cars which move on a track under the electrode platen and permit a continuous operation of the welder, roof after roof. The alternate jig car is loaded with a roof frame and roof sheets by the fitters and moves into the welder as soon as the other jig car vacates the welding position.

Preliminary to the spot-welding operations the roof



Automatic Spot Welder Which Joins the Sheathing to a Box-Car Side Frame in a Single Operation for Each Panel—The Indexing of the Jig Car under the Platen and the Cycle of Welding Operations Are Performed by the Operator at the Left Through Push-Button Controls

framing and side-framing members are assembled in accurate jigs and firmly clamped in position. In the case of the roof, the carlines are arc-welded to the side plate and the purlins to the carlines. In the case of the side-framing members the posts are arc welded to the side-sill angle and the side plate.

The roof framing unit is then placed on the secondary copper grillage of the welding jig car which backs up the set-up of multiple electrodes. The roof sheets are fitted and clamped in position for spot welding.

More than a dozen push buttons and more than a dozen manual valves are assembled on a central operator's control board. Manually, these individual controls initiate any one of a dozen operations. The manual setting of a selector switch, however, will automatically execute a dozen operations as one. Duplicate panels may thus be spot welded with dispatch.

Magnetic control through a sequence panel is the brain or nerve center making possible the several functions in the execution of a panel cycle. The push buttons, selector switch, limit switches, contactors, and solenoids are interconnected with the entire machine set-up to obtain the following functions:

1—Permit manual control of each welding operation individually if desired.

2—Permit a set-up to be made which will then proceed automatically to the final pre-set point.

3—Permit any previously pre-set set-up to be interrupted if desired, a single operation performed and then continue the set-up.

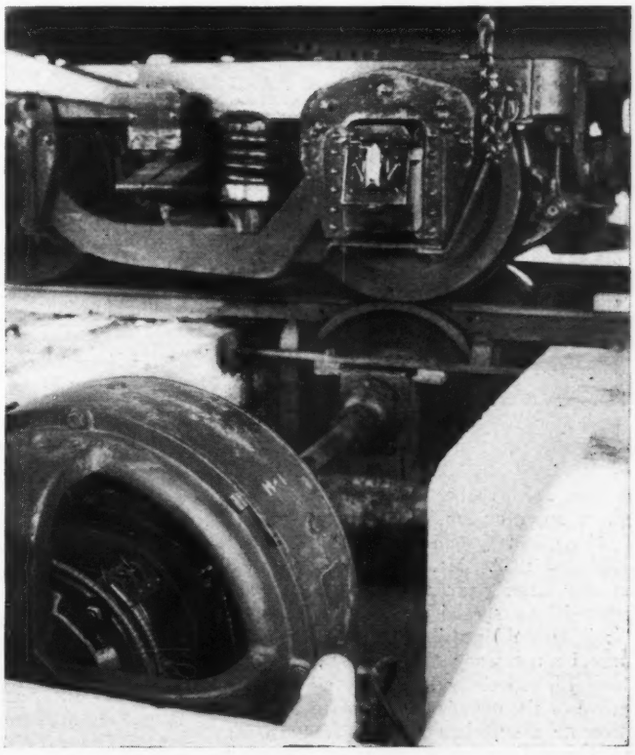
4—Manual termination of any individual operation.

The welding operations are electrically controlled to provide maximum speed and efficiency with a minimum of attention from the operator. The control provides and involves sequence of electrical interlocks between various parts of the machine. These interlocks act to start and terminate the movement of all associate machine parts in the proper order and to prevent the movement of any part of the machine when such movement would cause injury to the machine or materials being welded. In addition to regulating the mechanical motions of the machines, the control also serves to set up the proper circuit for welding and also times the application of welding current for each spot weld.

The recent installation of multiple spot-welding equipment at our St. Charles, Mo., plant is adapted for the welding of passenger-car sides and roofs of alloy steel. The panel welding of passenger-car sides and roofs is accomplished on a single welder with certain changes, however, in the electrode setup. A single welding jig car for sides and another for roofs is required. The set-up of electrodes for both the passenger-car sides and roof on the panel welder depends on the design, but is similar in all respects to the set-up for freight-car sides or roofs previously described.

Running Tests on Stationary Cars

THE Seaboard Air Line is operating a test stand at Portsmouth, Va., by means of which individual axles on cars may be driven at road speeds. It was designed originally for operating air conditioning and car lighting machinery and, in this capacity, it made unnecessary much riding of the cars by electricians and mechanics. It has also served to disclose wheels which were out of round, bent axles, sprung drive shafts, loose air tanks, eccentric axle pulleys and numerous minor faults, which become evident only at high speeds.



The Motor Is Located in a Shallow Transverse Pit and Is Directly Connected to the Driving Axle

The device consists of a variable speed motor driving a pair of wheels, which project through spaces cut away in the rails of the test stand. The car is spotted so that the motor-driven wheels drive any pair of wheels on the car. A more detailed description of the test stand appears in the April, 1941, issue of Railway Electrical Engineer.

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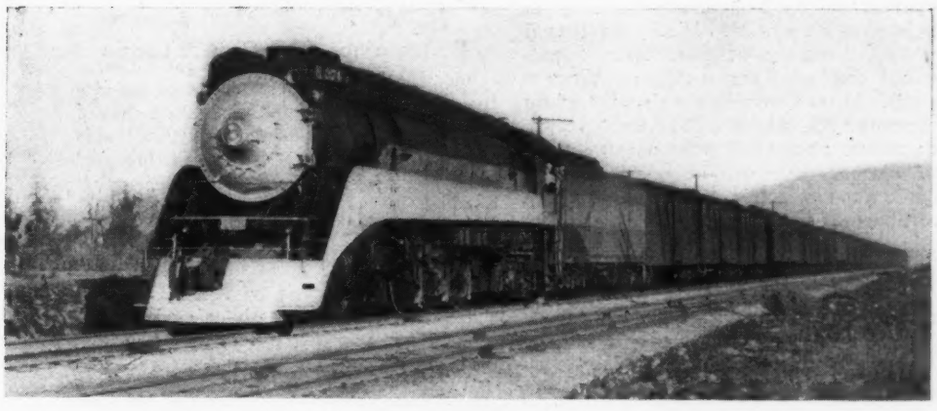

Espee Runs "Daylight" Locomotive No. 4411 on its San Francisco - Los Angeles Overnight Freight

Photo by R. H. Kindig, Denver, Colo.

NEWS

Western Roads to Need Their Cars

Quotas clapped on grain cars to get them home for harvest—Big % now off-line

The principal Eastern and Southern railroads have been called upon by W. C. Kendall, chairman of the Car Service Division, to meet quotas which will effect by June 15 a reduction of 25,000 in the number of Western box cars on their lines. The call came in April 9 circulars which stressed the "necessity for the adoption of a definite program to expedite the return of Western box cars to home territory," and urged all roads, "whether named in the quota order or not," to cooperate fully.

The quota system is like those used in 1936 and 1937. Mr. Kendall recalled that in the latter year the plan was supplemented by a special car order, adding that "it is entirely possible that similar action may be necessary this year by or about May 15, especially if crop conditions improve or the quota system does not quickly promote a sufficient flow of Western cars to home lines." While the instructions apply to all Western ownership cars, "it is particularly important to build up immediately the supply at home on railroads serving the Southwestern winter wheat territory." The "more important" of such roads are: Atchison, Topeka & Santa Fe; Chicago, Rock Island & Pacific; Chicago, Burlington & Quincy; Missouri Pacific; Missouri - Kansas - Texas; St. Louis - San Francisco; Texas & Pacific; and Union Pacific. Meanwhile "concurrent action is being taken with Western roads to further reduce to the minimum the loading of Western box cars out of home territory and to expedite the return of Eastern-Southern box cars in Western territory."

Plans for the quota system were developed at an April 4 Chicago meeting of transportation officers. Discussion ("as is usually necessary at this season") pertained chiefly to car supply on Western roads. It was brought out that the wheat carryover this season will be the "greatest on record"; there is "grave uncertainty as to whether there will be sufficient warehouse room to receive the new crop"; much of the stored wheat cannot be moved, if at all, until just on the eve of the harvest, which would dissipate the car supply that must be assembled for the new crop; crop conditions indicate a production much larger than the average; the supply of Western box cars on home roads is "extremely low"; the rapidly expanding industrial program is placing increasingly heavy demands on Western roads; Pacific coast traffic to the East "is increasing rapidly, and should there be a further reduction in intercoastal vessel service the demands on the car supply of this region will be extensively increased."

Data comparing the present box car situation on Western roads with that of last year, show that 27,490 or 13.4 per cent fewer Western-owned cars were at home on March 15 than on March 15, 1940. As compared with June 15, 1940, the figure for March 15, this year, was down 36,220 cars or 17 per cent. Meanwhile the Eastern and Allegheny roads had 49 per cent more Western box cars on their line March 15 than on March 15, 1940, and 75.4 per cent more than on June 15, last year. The Southern and Pocahontas roads on March 15 had on their lines 53.6 per cent more Western box cars than they had on March 15, 1940, and 73 per cent more than on June 15, last year. Mr. Kendall commented thus: "While this heavy accumulation now on Eastern-Southern roads has resulted chiefly from an abnormally heavy volume of Eastbound tonnage, it was apparent to all at the Chicago meeting that immediate action must be taken to start a return flow to Western territory."

The reductions called for in the quota plan are to be accomplished in the eight quarter-monthly periods between April 15 and June 15; and the rate of reduction to be attained in each period is set forth. Since the quotas are based on the March 15 location report "any reduction in Western box cars on line occurring before April 15 will reduce the quota requirements, while any increase will correspondingly increase the number of cars to be disposed of."

P. & S. Division to Meet July 10-11

The Purchases & Stores division, Association of American Railroads, will hold its annual meeting at the Palmer House, Chicago, on July 10 and 11. The convention will open at 10 a. m.

Status of the R. F. C. Rail Loans

The latest financial statement of the Reconstruction Finance Corporation as of March 31 shows disbursements to railroads (including receivers) of $806,716,675 and repayments of $319,717,199.

President Signs Bill to Extend Bituminous Coal Act

President Roosevelt on April 11 signed H. R. 4146, the recently-enacted bill to extend for two years from April 26 the provisions of the Bituminous Coal Act of 1937.

Army Is Getting Set to Railroad

Will begin operating its own r. r. in June to train personnel—Many changes since '18

Plans have been announced by the War Department for the formation during June of the battalion which will operate the Red River & Gulf and thereby "test military railway operations under assumed field service conditions." Funds for the acquisition by the army of the Red River & Gulf's 58.7-mile line in Louisiana were provided in the Fifth Supplemental National Defense Appropriation Bill for 1941 which was recently signed by President Roosevelt.

The War Department's announcement stated that the 711th Engineer Battalion (Railway Operating) will be formed at Camp Claiborne, La. It will consist of approximately 20 officers and 750 enlisted men. In addition to the utilization of the Red River & Gulf's present facilities, the plan contemplates the construction of 17.5 miles of additional line. Moreover, "the army has a specially designed light-weight railway equipment, 20-ton cars and 30-ton locomotives, for use in hastily prepared railways of forward areas; and they will be tested as to design, uses and efficiencies." In other words, "the new battalion will be a military railway laboratory to test all sorts of wartime railway operations; it will function as does a commercial railway, using military personnel."

As noted in the *Railway Age* of April 5, page 620, the 711th Engineer Battalion is a reserve unit affiliated with the Missouri Pacific; but the War Department announcement said that officers called for the Red River & Gulf assignment "will be secured from 20 operating battalions that compose the active units of the Military Railway Service." Describing the rail lines to be operated the announcement said: "The railroad to be purchased begins at Lecompte, La., runs 58 miles in a northwest direction to Kurtwood, La. From this point 17½ miles of new road to run in a southwesterly direction to Leesville, La., will be constructed so as to connect with a six-mile stretch of the Kansas City Southern running to Cooper, La. At Cooper trains will be routed over 4½ miles of existing government-owned trackage into Camp Polk. Total mileage of the road to be operated is 86 miles, six of which will be privately owned." It is further pointed out that the line "extends into one corner of Camp Claiborne, and

is South of Camp Beauregard and Camp Livingston and is connected by other railroads to those camps."

Volunteer requests of engineer railway reserve officers, with the concurrence of railroad management, for "extended active duty" with the battalion are "being received in adequate numbers." After a brief course at the Engineer School at Fort Belvoir, Va., the officers selected will serve one year with the battalion. They will then be replaced by another group. A nucleus of enlisted men will be provided by the transfer of individuals who have had railroad experience and who are already in the military service. The remainder of the battalion will come from the Engineer Replacement Training Center at Fort Belvoir.

"Mobile warfare of today," the War Department announcement said in closing, "interferes with military railway operations to a greater distance to the rear than ever before. Railway yards and terminals have been primary air-raid targets during the present European conflict. The operations and training of the 711th Engineer Battalion will be adapted to modern war conditions, the lessons of recent campaigns applied, and methods worked out so that our Military Railway Service will provide the maximum possible transportation for the army. The considerations leading to the formation of a railway unit are many. During the War of 1917-1918, railway operating, construction, maintenance and shop units were formed from among experienced railway men in the United States, transported to France, and assigned on the lines allocated to the A. E. F. At that time, there were many railway men of an age and physical condition suitable for military service.

This is not wholly true today. Officers from among railway officials have been appointed in sufficient numbers for an adequate Military Railway Service.

"A study made in 1938 by the Bureau of Research and Information Service of the United States Railroad Retirement Board indicates that the average ages of the various railway occupational groups vary from 33 years for maintenance-of-way extra gang men to 55 years for engineers and conductors. While it is expected that the railroads of the United States will be able to provide enlisted nuclei for military railway units, it is obvious that a great many men of limited or no experience will have to receive training for various railway duties.

The 711th Engineer Battalion will provide a test for the efficacy of such training.

"The organization of a railway operating battalion is based on the personnel of a division of a commercial railway. It includes: A headquarters, corresponding to a division superintendent and his staff; a headquarters and service company to provide for administration, planning, supply, dispatching, signal maintenance and messing along the lines; a maintenance of way company to repair and maintain a bridge, buildings and track; a maintenance of equipment company to effect running repairs to locomotives and cars; and a transportation company to operate the trains and provide switching and yard service."

Hoecake and "Drawbar Scrapple"

Tested recipes used by rear-end freight crews on long trips and layovers are described in a feature article entitled "Caboose Cuisine" appearing in the April 19 "Saturday Evening Post." Written by Clifford Funkhouser and Lyman Anson, it bares the culinary art of a caboose chef by the name of "Preacher," "a sanctimonious runt of a rear brakeman on a Southern freight road who could make his own conductor wash the dishes and like it." One of the authors of the article *was* that conductor.

Among the delicacies from a pot-bellied stove described are spoon-drip coffee; stuffed mud-hen, hoecakes, navy beans, "Paul Bunyan" sandwiches for crews on "peddlers," and "drawbar scrapple."

"South Wind" Derailed

The "South Wind," streamlined coach train operating between Chicago and Miami, Fla., was derailed on April 10 near DuPont, Ga., while traveling southbound on Atlantic Coast Line, injuring about 14 passengers. Five cars were derailed, two turning over. The accident was thought to have been caused by a broken rail.

Evangelist to Sermonize on Grade Crossings

The Reverend E. Howard Cadle, an evangelist of Cadle Tabernacle, Indianapolis, Ind., will devote his sermon on Sunday, April 20, to the subject of safety at highway grade crossings. The sermon will be broadcast at 11 a. m. (c. s. t.) through radio station WLW and a network of 52 other stations.

Fan Activities

The Railroad Enthusiasts, New York division, will hold its next meeting in room 2728 Grand Central terminal, New York, on April 25. Charles T. Van Vliet, engineering staff, Hartford Accident & Indemnity Company, will describe the operations of the Chicago freight tunnels, and Captain P. T. Hogan of the New York Central police, will describe the work of his department.

Regional Meeting of Safety Section To Be Held at Chicago on May 7

A regional meeting of the Safety Section of the Association of American Railroads will be held at Chicago on May 7 in conjunction with the nineteenth annual midwest Safety Conference. Subjects and speakers on the program are as follows: Some Factors Affecting Safety in Interstate Transportation, by Hon. W. J. Patterson, member of the Interstate Commerce Commission; The Safety Problem as Seen by an Operating Man, by F. B. Whitman, superintendent of the Chicago, Burlington & Quincy; Safety in Car Repair and Maintenance Work, by G. R. Anderson, district supervisor of car maintenance of the Chicago & North Western; Safe and Prompt Handling of Explosives for National Defense, by Harry A. Campbell, assistant chief of the Bureau of Explosives; The Transportation Outlook, by R. V. Fletcher, vice-president and general counsel of the Association of American Railroads; The Human Element in Maintenance of Way Safety, by Armstrong Chinn, chief engineer of the Alton; and What is the American Way, by Dr. Charles C. Smith of the National Association of Manufacturers.

Mediation Meetings Still in Recess

National Mediation Board meetings with labor and management representatives in connection with the demand of 14 non-operating unions for vacations with pay remained in recess throughout this week, but it was expected that sessions would be resumed on Monday, April 21. As noted in the *Railway Age* of April 12, page 665, the recess was taken my mutual agreement at the close of the week ended April 5.

Equipment On Order

Class I railroads on April 1 had 42,335 new freight cars and 335 new locomotives on order, according to the Association of American Railroads. This was an increase of 21,223 freight cars and 220 locomotives compared with the numbers on order on April 1, 1940. New freight cars put in service during the first three months of this year totaled 18,464, compared with 20,253 during the comparable 1940 period; new locomotives put in service total 123, compared with 79 put in service during last year's first quarter.

Representation of Employees

The National Mediation Board has announced results of recent elections in representation-of-employees disputes on the Monongahela and Wabash. On the former the maintenance of way employees by a vote of 123 to 40 chose the Brotherhood of Maintenance of Way Employees in preference to the Maintenance of Way Employees Committee of the Monongahela Railway Company. On the Wabash the unlicensed marine personnel, deck and engine departments, have chosen the National Maritime Union of America.

Three Roads Fined $9,000

Fines aggregating $9,000 were assessed against the Chicago, Milwaukee, St. Paul & Pacific; the Chicago, Rock Island & Pacific; and the Chicago, Burlington & Quincy by the federal district court at Peoria, Ill., on April 10, after the roads pleaded guilty to charges of having made special rate concessions to the John Deere Plow Company, Moline, Ill., the International Harvester Company, Rock Island, Ill., and the Birtman Electric Company, Rock Island. The firms will repay the full amount of the rate concessions, estimated at from $25,000 to $30,000.

O. E. Hovey, Bridge Designer, Dies at 77

Dr. Otis Ellis Hovey, noted bridge designer and civil engineer of New York, died on April 15 at the age of 77. Early in his career Dr. Hovey was engineer in charge of construction of the Hoosac Tunnel & Wilmington, a short line road in

Massachusetts and Vermont, and from 1900 to 1934 held various official positions with the American Bridge Company in connection with railway and highway bridges. He is the author of "Movable Bridges" published in 1926, a standard work on the subject, and has been granted patents on improvements in locomotive turntables. He has been treasurer of the American Society of Civil Engineers since 1921.

May Settle N. P. Land Grant Claim

Attorney General Jackson this week transmitted to Congress a letter containing a recommendation of the Department of Justice "with regards to the suit instituted by the United States Government with regards to removing the cloud on the title of approximately 2,900,000 acres of land claimed by the Northern Pacific."

Although the contents of the letter were not made public, it is understood that it embodied a compromise settlement of the controversy which was recently passed upon in a United States Supreme Court decision, a summary of which was given in the *Railway Age* of December 21, 1940, page 959.

Club Meetings

The Northwest Car Men's Association will hold its next meeting at the Midway Club, St. Paul, Minn., on May 5 at 8 p. m. Colonel Robert S. Henry, assistant to president (public relations), Association of American Railroads, will be the principal speaker.

The Northwest Locomotive Association will hold its next meeting at Woodruff hall, St. Paul, Minn., on April 21 at 8 p. m. "Water Treatment from the Viewpoint of the Engineman-Boilermaker-Water Service Engineer" will be discussed by A. F. Ludington, traveling engineer, Chicago, Milwaukee, St. Paul & Pacific; H. J. Sholl, boilermaker foreman, Northern Pacific and N. V. Lucas, water service engineer, National Aluminate Corporation.

Hamilton Discusses Railroad Car Lighting

W. S. H. Hamilton, equipment electrical engineer, New York Central, spoke before a joint meeting of the Transportation and Illumination Groups, New York Section, of the American Institute of Electrical Engineers, on April 10, having as his subject "Modern Railroad Car Lighting."

Mr. Hamilton contrasted car lighting of only a few years ago with that of the present to show the revolutionary improvements which have been made. His talk was illustrated with slides, showing some old-style cars and numerous examples of current lighting methods. Mr. Hamilton listed several basic requirements of good lighting. Among these were lighting intensity values ranging from 7 to 15 footcandles, and an absence of glare. It is necessary, he said, to put a certain amount of light on the ceilings or passengers will think the cars are not well lighted. If fixtures are to be efficient, he said, they must be large enough to let the light out.

Concerning the future, he predicted further refinements in present types of fluorescent lamps, including the development of shorter tubes, and possibly means for operating tubes on 32 volts. He expressed the opinion that fluorescent lamp efficiencies are not yet at their peak and suggested that we may have fluorescent lamps globular in shape.

He described in principle a d. c. booster. This is a development now in progress which will raise a 32-volt d. c. source to 64 volts for the operation of the 15-in. fluorescent lamp on direct current. The device is a two-armature machine, one armature acting as a motor and the other as a generator, which develops half of the necessary power for 64-volt lighting.

During the discussion, a joint tribute was paid to Mr. Hamilton and to C. P. Taylor, electrical engineer, Norfolk & Western, as the two pioneers who had done most to develop modern railroad car lighting.

Unless a R. R. Can Attract Capital, It Won't Have Customers or Jobs

In its annual report for 1940 the Atchison, Topeka & Santa Fe points out that it has a net investment in property of $27,000 for each of its 41,300 employees. The railroad is owned by 53,000 stockholders who received $8,635,700 in dividends during the year. The 1940 taxes of $17,159,640 averaged $415 per employee and over $7 per share of common stock.

Writes President E. J. Engel: "Employees perform work and stockholders invest money to produce transportation; the investments of the stockholders and the opportunity of the employees to work are secure only as this transportation service is useful, economical, and attractive to travelers and shippers; and only as these qualities continue to prevail can there be any security for employee or employer."

High Court Upholds I. C. C.

The United States Supreme Court, at its April 14 meeting, in the case of United States versus Leamon Resler, reversed a decision of a United States District court in Colorado which had held that operators of truck lines owning less than 20 vehicles may transfer their federal operating certificates without submission to the Interstate Commerce Commission for approval.

The decision by Justice Murphy holds that section 212 (b) of the Motor Carrier Act governs the transfer in the instant case. This section authorizes the commission to set up rules and regulations for the transfer of certificates of operating rights. The appellee, Leamon Resler, had contended that he had purchased the operating rights for less than 20 trucks from the Brady Truck Line and that such a transfer was exempt from section 212 (b) by section 213 (e) of the Act, which refers to consolidations and mergers and exempts from commission approval those transfers which involve less than 20 vehicles in all.

The court denied this contention and pointed out that a simple transfer of operating rights from one person to another comes under the rules of the commission, while the exemption applies only to mergers and consolidations of companies.

Author of "Grimshaw's Locomotive Catechism" Dies at 91

Dr. Robert Grimshaw, noted inventor and engineer in the mechanical field, died at Englewood, N. J., on April 9 at the age of 91. Dr. Grimshaw retired at the age of 82 following a career of 60 years in mechanical engineering, during which time he developed a number of technical improvements in the railroad industry. He was also a prolific writer on engineering subjects and was the first editor of the magazine "Power."

His principal writing in the railroad field is the "Locomotive Catechism" which ran through 30 editions, the last being dated 1923. This work is a 958-page handbook of questions and answers concerning practical operation and maintenance of the steam locomotive. Dr. Grimshaw was one of the founders of the American Society of Mechanical Engineers in 1880 and a member of a number of professional societies abroad.

Bus Lines Can't Sell Cut-Rate Scrip Coupons

The Interstate Commerce Commission, Division 2, has ordered members of the National Bus Traffic Association and certain other bus lines to discontinue the issuance and sale of scrip books and certificates at less than the published standard fares. The decision is in Investigation & Suspension Docket No. M-822, and it embraces also No. MC-C-148; the commission found the rules, regulations and charges applicable to the interchangeable scrip coupon tickets "unreasonable, unjustly discriminatory, and unduly prejudical."

"The schedules under investigation," the decision said, "do not specifically supersede or alter the respondents' basic standard fares but they do enable purchasers of scrip books to procure tickets from 10 to 30 per cent less than the respective standard fares." The evidence indicated that automobile transporters have been the principal buyers of the scrip books.

Grade Crossing Accident Fatalities Increase

An increase in the number of fatalities resulting from highway-railroad grade crossing accidents took place in the first two months of 1941, compared with the same period last year, according to the Safety Section of the Association of American Railroads. In January and February of this year there were 372 fatalities compared with 351 in the corresponding period in 1940; persons injured totaled 943 in the first two months this year, compared with 1,037 in the same months one year ago.

In January, 196 persons lost their lives in highway-railroad grade crossing accidents, a decrease of one compared with January, 1940. In those accidents, 484 persons were injured, compared with 583 in January last year. In February, there were 176 fatalities, an increase of 22 com-

pared with February, 1940. Persons injured in highway-railroad grade crossing accidents in February totaled 459, an increase of five compared with February the preceding year.

March Operating Revenues Up 26.1 Per Cent Over 1940

Preliminary reports from 86 Class I railroads, representing 82.2 per cent of total operating revenues, show that those roads, in March, had estimated operating revenues amounting to $339,001,334 compared with $268,805,257 in the same month of 1940, and $370,080,769 in the same month of 1930, according to the Association of American Railroads. Operating revenues of those roads in March, were 26.1 per cent above those for March, 1940, but 8.4 per cent below March, 1930.

Freight revenues of the 86 Class I roads in March, amounted to $282,420,954 compared with $218,682,217 in March, 1940, and $284,844,711 in March, 1930. Freight revenues in March were 29.1 per cent above the same month in 1940, but 0.9 per cent below the same month in 1930. Passenger revenues in March, totaled $32,161,553 compared with $27,290,462 in March, 1940, and $50,922,133 in March, 1930. For the month of March, they were 17.8 per cent above the same month in 1940, but 36.8 per cent below the same month in 1930.

Low Fares for Men in Uniform

Special railroad fares of 1¼ cents per mile for the uniformed personnel of the Army, Navy, Marine Corps and Coast Guard will be established on or about May 1, J. J. Pelley, President of the Association of American Railroads announced on April 16.

The special fares will be good for round-trip travel in coaches between all points in the United States and will be available to any member of the nation's military forces traveling in uniform on furlough at his own expense. Tariffs are now being prepared and will be filed as soon as the necessary authorities can be obtained. As soon as the tariffs become effective, the tickets will be on sale.

The special fares will carry a 30-day limit, and will expire on October 31, 1941. Prior to the expiration date, consideration will be given to the possiblity of extending these rates. Army, Navy, Marine Corps and Coast Guard officers and men may purchase these special fare tickets upon presentation of an official furlough-fare certificate which can be obtained from the commanding officers at all military establishments.

Swiss Lack Adequate Railroad Connections

While the railroads of Switzerland are operating at a high peak of efficiency, exporters and importers in the country and shippers of transit traffic are finding it almost impossible to obtain transportation from the French-Spanish border to the Spanish ports, the only ones now available to Continental Europe. Shortage of rolling stock and locomotive fuel on the Spanish roads has led officers to refuse cars for the transit of merchandise through Spain except in small parcels by so-called "fast freight," on which rates are almost prohibitive. Moreover, since the gage of the Swiss Federal system and the French railroads is standard and that of the Spanish roads is 5 ft. 3 in., use of Swiss cars in Spain is impossible.

Negotiations have resulted in permission from the Spanish government for the Swiss to establish trucking facilities from the French-Swiss border to Atlantic ports, according to the United States Bureau of Foreign & Domestic Commerce. Also certain shippers in Switzerland have been able to rent privately-owned freight cars from Portuguese and Spanish firms that have not been subjected to the blockade imposed by the Spanish government on transit traffic. The running time of these cars between Lisbon and the Spanish border is 10 to 12 days.

Flexible Wages in Canada

In seeking wage adjustments, the railway unions in Canada are not asking an inflexible increase—which would cause heartburnings and maximize unemployment at the cessation of hostilities. Instead, they are seeking a flexible "cost of living bonus," which would rise or fall automatically with the cost of living. Contrary to the example of some unions south of the border, most Canadian labor organizations are not seeking to use their country's peril as a means of advancing their economic status.

Disagreement has arisen over the Canadian employees' request as to the period on which the cost of living and wages should be based. Wages, in general, are at the 1929 level while cost of living is below that level, but above the 1939 level. The dispute thus arises over the question: should the cost of living bonus be applied for increases over the 1939 level, or should it wait until the 1929 level is surpassed? The answer, presumably, will be worked out by the routine conciliation machinery provided by law.

St. Lawrence Seaway

Congressional activities of the past week in connection with the proposed St. Lawrence development were confined to the usual run of pro and con statements which have been appearing regularly in the Congressional Record. When this issue of *Railway Age* went to press the expected legislation to make effective the United States-Canadian agreement had not been introduced.

Among recent statements appearing in the Record was a resolution in support of the seaway adopted recently by the Milwaukee (Wis.) Common Council and inserted by Senator Wiley, Republican of Wisconsin. In the appendix to the same issue of the Record (April 14) appeared a radio address in opposition which was delivered recently by Representative Van Zandt, Republican of Pennsylvania. In the April 15 issue Senator Bankhead, Democrat of Alabama, inserted a resolution in opposition which had been adopted by the Associated Industries of Alabama, while Senator Byrd, Democrat of Virginia, inserted a statement in opposition which had been prepared by H. E. Ketner, commerce counsel for the Virginia State Corporation Commission, and adopted by that Commission. Favorable editorials and letters to editors were inserted by Representative Dondero, Republican of Michigan, while Representative Meyer, Democrat of Maryland, inserted a statement setting forth the opposition of the Baltimore Association of Commerce.

Minnesota Roads Ordered to Absorb Switching Charges

The Minnesota Railroad and Warehouse Commission on April 15 ordered railroads operating in that state to absorb connecting line switching charges on grain shipments reaching terminal markets in the Twin Cities and Duluth.

Brewers Say RR's Get 48 Million a Year From Beer

A traffic expert of the United Brewers' Industrial Foundation has calculated that in the eight years since beer was re-legalized the railroad industry has realized approximately $300,000,000 on direct brewery traffic. He has figured out that about $48,150,000 is paid to the railroads annually on direct brewery business alone—i. e., outbound movement of beer and inbound movement of empty containers, raw materials and equipment delivered to the breweries. One year's volume is itemized as follows:

Outbound movement of beer and other malt liquors	$19,847,555
Inbound empty containers returned to breweries	11,908,533
Raw materials used in the manufacture of malt liquors, such as barley, hops, coal, oil, rice, corn, etc.	12,398,845
New bottles, cans and cooperage into breweries on initial movements from manufacturers	4,004,353
	$48,159,286

In addition to this direct business it is estimated that the railroads have hauled 12,000 cars of lumber and steel hoops used for wooden beer barrels since legalization and 92,220 cars of glass sand and other raw products to beer bottle factories.

No Committee Action Yet on Transport Board

The Senate committee on interstate commerce had still not acted upon President Roosevelt's appointments to the transport-study board called for in the Transportation Act of 1940 when Chairman Wheeler of the committee left Washington this week for a three-weeks speaking tour. Thus a month of inaction has passed since President Roosevelt on March 20 sent to the Senate the names of the three nominees—Wayne Coy, Charles West and Nelson Lee Smith.

Meanwhile the reports to the effect that protests have reached the point where consideration is being given to withdrawing the appointments appear to stem from the fact that there is a feeling among Senators from Southern states that at least one member of the board should have come from that section. However, the Southern Senators are not expected to make any re-

quest that the nominations be withdrawn; they are more likely to foster among interstate commerce committee members a disinclination to act on the matter. It is understood to be the hope of some among them that a prolonged delay in committee may create a situation wherein the President might be disposed to withdraw the present nominations and thereby pave the way for the naming of a member from the South.

Freight Car Loading

Revenue freight car loading for the week ended April 12 totaled 679,808 cars, the Association of American Railroads announced on April 17. This was a decrease of 3,954 cars, or 0.5 per cent, below the preceding week, due to the continuance of the coal strike, but an increase of 60,703 cars, or 9.8 per cent, above the corresponding week last year, and an increase of 132,629 cars, or 24.2 per cent, above the comparable 1939 week.

As reported in last week's issue, the loadings for the previous week ended April 5, totaled 683,402 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Districts	1941	1940	1939
Eastern	157,153	133,234	127,966
Allegheny	149,826	122,412	100,675
Pocahontas	24,770	41,257	13,866
Southern	108,808	98,766	90,059
Northwestern	86,676	71,245	67,848
Central Western	105,207	92,200	92,195
Southwestern	50,962	43,721	42,343
Total Western Roads	242,845	207,166	202,386
Total All Roads	683,402	602,835	534,952
Commodities			
Grain and grain products	35,405	30,108	30,210
Live stock	10,837	9,999	10,531
Coal	58,841	100,626	45,941
Coke	10,160	7,331	6,024
Forest products	38,682	31,640	26,871
Ore	18,238	10,375	8,657
Merchandise l.c.l.	162,942	149,766	157,748
Miscellaneous	348,297	262,990	248,970
April 5	683,402	602,835	534,952
March 29	792,125	628,921	600,691
March 22	768,508	620,375	601,948
March 15	758,693	619,388	591,166
March 8	741,922	620,596	588,426
Cumulative Total, 14 Weeks	10,065,603	8,773,365	8,083,203

In Canada.—Carloadings in the week ended April 5 totaled 58,840, the highest figure reached this year. For the previous week they were 57,516 and for the corresponding week last year 49,701. Totals are from the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
April 5, 1941	58,840	31,316
March 29, 1941	57,516	31,937
March 22, 1941	56,090	29,749
April 6, 1940	49,701	25,956
Cumulative Totals for Canada:		
April 5, 1941	759,179	405,410
April 6, 1940	654,181	340,001
April 8, 1939	569,021	297,119

Michigan Employees Fight the Ditch with Comics

A pamphlet which points out the fallacies of the St. Lawrence Seaway project in humorous little sketches is the latest weapon in the campaign being fought by the Railroad Co-operative League of Michigan (a railroad employees' and citizens' organization which is carrying on popular education work on the fundamentals of transportation) against the scheme. Headed "Why the St. Lawrence Waterway Project Should Be Defeated" the broadside presents the main arguments against the project in brief dramatic sentences and cartoons, of which a few samples are here reprinted.

Michigan Railroaders Use Cartoons to Show Why St. Lawrence Waterway Project Should be Defeated

First Quarter's Export Traffic

Cars of export freight, other than grain, unloaded at North Atlantic ports (from Hampton Roads, Va., to the Canadian border) in the first three months of 1941 totaled 88,439, an increase of 9,122 cars or 12 per cent compared with the same period last year, according to the Association of American Railroads. Taking all Atlantic, Gulf and Pacific ports, however, the number of cars of export freight, other than grain, unloaded in the first three months of 1941, totaled 134,821 cars, a decrease of 2,832 or two per cent compared with the same period last year.

"Due to the cooperation of steamship lines, port authorities, exporters and shippers, no congestion or delay to traffic exists at any of the ports," the A. A. R. statement said.

In March alone, according to reports just compiled by the Manager of Port Traffic of the Association, 46,729 cars of export freight, other than grain, were unloaded at Atlantic, Gulf and Pacific ports, compared with 46,283 cars in March, 1940. Cars of grain for export unloaded in March this year at these ports totaled 5,237, compared with 5,776 in the same month last year. Notwithstanding the heavy movement of export traffic through the North Atlantic ports, particularly Boston, New York, Philadelphia and Baltimore, the A. A. R. said that "there is ample rail storage facilities at all of the ports."

Roosevelt Names Interregional Highway Committee

President Roosevelt has appointed a National Interregional Highway Committee to serve in an advisory capacity to John M. Carmody, Administrator of the Federal Works Agency. In his letter to Mr. Carmody, the President said that the committee "is to review existing data and surveys and upon completion of its review will report to me not later than October 1, outlining and recommending a limited system of national highways designed to provide a basis for improved interregional transportation."

The President has asked the following persons to accept membership on the committee: Thomas H. MacDonald, commissioner of public roads, Federal Works Agency; G. Donald Kennedy, state highway commissioner, Lansing, Mich.; Bibb Graves, former governor of Alabama; C. H. Purcell, state highway engineer, Sacramento, Calif.; Frederic A. Delano, chairman, National Resources Planning Board; Harland Bartholomew, city planner, St. Louis, Mo.; and Rexford Guy Tugwell, chairman, New York City Planning Commission.

"Most of the members of this committee," continues the President's letter to Mr. Carmody, "have both an extensive knowledge of the problem and a sympathetic interest in its solution. It is my hope that our national needs will be paramount in their deliberations and that as a result of their recommendations we can prepare detailed plans and specifications. This will permit us upon the conclusion of our defense program to utilize productively some of the man power and industrial capacity then available to construct a national system of interregional highways."

The President also informed Mr. Carmody that his agency would furnish such staff "as will be necessary for the efficient functioning of this committee" and will compensate its members for travel expenses incurred.

Abandonments in Canada

For a number of years after the last war the Canadian Pacific and Canadian National were engaged in an ambitious branch line construction program, and now during the present war and just previous to it, with the growing highway competition, they are again abandoning lines. A statement recently presented to the House of Commons at Ottawa showed that nearly 1,000 miles of branch lines have been dropped, the total number of lines being 62, all of this authorized by the Board of Transport Commissioners.

Of the total lines so far abandoned 41

have been Canadian National, totaling 663 miles, 19 Canadian Pacific, totaling 314 miles; and two other small lines aggregating 22 miles. Canadian National abandonments are divided as follows: 19 in Ontario for 327 miles; 12 in Quebec for 219 miles; 7 in the West for 67 miles; and 3 in the Maritime provinces for 50 miles.

Canadian Pacific abandoned lines are as follows: 7 in Ontario for a total of 78 miles; 2 in Quebec for 20 miles; 2 in New Brunswick for 56 miles; and 8 in the West for 160 miles. Two other lines under separate control were one in Ontario and one in New Brunswick, aggregating 22 miles.

One of these abandonments, a line in Alberta, was the subject of protest in the House this session by an Alberta member who declared that the Dominion government should order its continuance because it was in a large wheat-growing area, and its abandonment would be injurious to grain growers, but the government's reply was that the order of the Transport Commission was final.

O. & W. Taxers to Consider Cuts

Some 150 representatives of taxing districts in nine New York counties will meet in the Central High School at Roscoe, N. Y., on April 25, to consider a reduction of taxes levied against the bankrupt New York, Ontario & Western. Called at the invitation of the Board of Supervisors of Sullivan County, the meeting will be the tax officers' own "party," since inability of the railroad to find more than a million dollars of taxes unpaid since 1937 makes the problem of reduction the tax districts' own problem.

The railroad has offered to operate special trains to Roscoe from Oswego and Cornwall, respectively, its terminal points in New York state. Also, by invitation of the meeting, Trustee F. E. Lyford and other officers of the road will appear to analyze the road's position.

Due to large losses in revenue caused by collapse of tonnage-producing coal companies on its rails, the O. & W. has been unable to pay any real estate taxes since 1937. It has succeeded in persuading certain tax districts to reduce assessments, but since the response has been "spotty," a more uniform action by the communities must be sought.

To be considered at the meeting is the possibility of all tax districts selecting a committee to act in a capacity similar to bondholders' committees in bankruptcy proceedings in the federal district court; i. e., seek to be made a party thereto. The committee would investigate the railroad's position and determine the taxes to be levied in the future "to enable the railroad to continue its operation and at the same time pay some taxes."

Wage and Hour Administration Interprets Laws

The Wage and Hour Administration of the United States Department of Labor has issued a revised edition of its Interpretative Bulletin No. 9, entitled, "Exemption from Maximum Hour Provisions for Certain Employees of Motor Carriers," which defines the scope and applicability of the exemption provided by section 13(b) (1) of the Fair Labor Standards Act of 1938.

In a new paragraph, numbered eight, the bulletin points out that in regard to the truck drivers engaged in performing pick-up and delivery service under contract between the employer and the railroad, the Interstate Commerce Commission has held that the drivers engaged in this service are not within the commission's regulatory power under section 204 of the Motor Carrier Act. It is further declared that it was the Wage and Hour Administration's position prior to the passage of the Transportation Act of 1940 that none of the employees of such companies, including drivers, were within the exemption provisions of section 13(b) (1) of the Fair Labor Standards Act, but that section 202 (c) (2) of the Transportation Act of 1940 raised the question as to whether the status of these employees was changed.

The bulletin reaches the conclusion that the status of these employees was not changed and that they are not exempt from the Fair Labor Standards Act insofar as that act affects them.

On the other hand, after pointing out that the commission has held that drivers of motor carriers who are engaged in delivering baggage and other goods to and from a line haul motor carrier station are within its regulatory power as to hours, the bulletin takes the position that these drivers are exempt from the Fair Labor Standards Act. The same situation exists, it continues, in the case of motor carriers engaged in pickup and delivery service under contract with forwarding companies.

January's Net Income Was $19,704,659

Class I railroads reported for January a net income after fixed charges of $19,704,659 as compared with a net income of $3,797,302 in January, 1940, according to the Interstate Commerce Commission's monthly compilation of selected income and balance sheet items. The roads not in receivership or trusteeship had a net income of $22,367,548 as compared with $11,332,113 for the same month of last year.

Forty-seven roads reported net incomes

SELECTED INCOME AND BALANCE-SHEET ITEMS OF CLASS I STEAM RAILWAYS

Compiled from 132 Reports (Form IBS) Representing 137 Steam Railways
(Switching and Terminal Companies Not Included)

Income Items	All Class I Railways, For the month of January 1941	1940
1. Net railway operating income	$62,357,402	$46,012,812
2. Other income	11,861,952	11,749,878
3. Total income	74,219,354	57,762,690
4. Miscellaneous deductions from income	2,429,769	2,372,998
5. Income available for fixed charges	71,789,585	55,389,692
6. Fixed charges:		
6-01. Rent for leased roads and equipment	12,257,219	11,045,890
6-02. Interest deductions[1]	37,724,202	38,449,050
6-03. Other deductions	120,677	131,672
6-04. Total fixed charges	50,102,098	49,626,612
7. Income after fixed charges	21,687,487	5,763,080
8. Contingent charges	1,982,828	1,965,778
9. Net income	19,704,659	3,797,302
10. Depreciation (Way and structures and Equipment)	17,656,804	16,871,615
11. Federal income taxes	6,758,128	3,375,463

Selected Asset and Liability Items	All Class I Railways, Balance at end of January 1941	1940
12. Dividend appropriations:		
12-01. On common stock	2,615,981	3,420,879
12-02. On preferred stock	536,436	1,794,411
Ratio of income to fixed charges (Item 5 ÷ 6-04)	1.43	1.12
13. Investments in stocks, bonds, etc., other than those of affiliated companies (Total, Account 707)	$559,761,865	$622,533,319
14. Cash	$650,569,042	$530,196,040
15. Temporary cash investments	73,318,514	49,879,620
16. Special deposits	96,521,184	101,394,932
17. Loans and bills receivable	1,652,297	1,287,143
18. Traffic and car-service balances—Dr.	28,360,578	26,502,050
19. Net balance receivable from agents and conductors	54,145,071	48,945,244
20. Miscellaneous accounts receivable	134,423,674	127,160,294
21. Materials and supplies	343,116,821	342,920,103
22. Interest and dividends receivable	12,471,772	14,393,478
23. Rents receivable	1,190,677	1,101,116
24. Other current assets	5,709,414	4,188,353
25. Total current assets (items 14 to 24)	1,401,479,044	1,247,968,373
26. Funded debt maturing within 6 months[2]	$103,646,212	$192,860,225
27. Loans and bills payable[3]	$81,890,420	$158,701,492
28. Traffic and car-service balances—Cr.	46,318,897	43,936,704
29. Audited accounts and wages payable	233,545,894	231,136,971
30. Miscellaneous accounts payable	47,484,690	59,993,491
31. Interest matured unpaid	36,423,974	19,474,182
32. Dividends matured unpaid	4,909,058	5,021,170
33. Unmatured interest accrued	79,327,963	80,655,923
34. Unmatured dividends declared	4,312,816	3,435,316
35. Unmatured rents accrued	18,347,510	18,610,153
36. Accrued tax liability	233,380,305	208,189,822
37. Other current liabilities	37,813,808	29,501,846
38. Total current liabilities (items 27 to 37)	823,755,335	858,657,070
39. Analysis of accrued tax liability:		
39-01. U. S. Government taxes	125,932,486	92,941,668
39-02. Other than U. S. Government taxes	107,447,819	115,248,154

[1] Represents accruals, including the amount in default.
[2] Includes payments of principal of long-term debt (other than long-term debt in default) which will become due within six months after close of month of report.
[3] Includes obligations which mature not more than 2 years after date of issue.

NET INCOME OF LARGE STEAM RAILWAYS

(Switching and Terminal Companies Not Included)

Name of railway	Net income after depreciation, For the month of January 1941	Net income after depreciation, For the month of January 1940	Net income before depreciation, For the month of January 1941	Net income before depreciation, For the month of January 1940
Alton	* $80,647	* $246,179	* $57,790	* $224,728
Atchison, Topeka & Santa Fe[4]	841,240	* 417,309	1,841,410	562,835
Atlantic Coast Line	1,776,350	537,077	1,964,208	705,075
Baltimore & Ohio	911,874	* 495,031	1,533,780	101,983
Boston & Maine	263,411	48,686	381,987	169,060
Central of Georgia[2]	* 94,677	* 261,797	* 23,402	* 190,943
Central of New Jersey[2]	* 271,784	8,509	* 161,767	125,520
Chesapeake & Ohio	2,244,776	2,848,483	2,958,108	3,549,435
Chicago & Eastern Illinois	159,030	* 99,836	210,519	* 49,446
Chicago & North Western[2]	* 685,127	* 1,311,714	* 281,500	* 900,757
Chicago, Burlington & Quincy	931,451	21,200	1,387,360	453,548
Chicago Great Western[2]	38,461	* 73,363	85,304	* 26,979
Chicago, Milwaukee, St. Paul & Pacific[2]	* 138,233	* 682,651	367,421	* 194,621
Chicago, Rock Island & Pacific[2]	* 79,408	* 837,780	282,538	* 497,150
Chicago, St. Paul, Minneapolis & Omaha	* 198,921	* 157,368	* 153,178	* 110,055
Delaware & Hudson	144,730	194,929	240,378	280,718
Delaware, Lackawanna & Western	260,029	213,070	466,232	413,391
Denver & Rio Grande Western[2]	* 256,900	* 250,411	* 148,928	* 146,603
Elgin, Joliet & Eastern	538,104	305,644	639,159	383,648
Erie (including Chicago & Erie)[3]	446,037	* 60,601	750,944	238,206
Grand Trunk Western	33,015	* 45,535	130,667	53,434
Great Northern	* 1,058,218	* 988,993	* 703,476	* 682,027
Illinois Central	874,412	94,936	1,428,686	619,220
Lehigh Valley	200,989	162,760	370,559	340,099
Long Island	* 227,224	* 195,600	* 97,297	* 98,336
Louisville & Nashville	1,186,357	722,350	1,563,330	1,080,086
Minneapolis, St. Paul & Sault Ste. Marie[2]	* 632,007	* 585,667	* 525,458	* 483,421
Missouri-Kansas-Texas	* 225,798	* 321,933	* 129,738	* 221,374
Missouri Pacific[2]	* 125,300	* 790,048	249,899	* 416,385
New York Central[5]	2,123,252	1,027,787	3,632,445	2,345,044
New York, Chicago & St. Louis	594,920	284,084	732,644	417,048
New York, New Haven & Hartford[2]	8,337	* 217,818	285,940	56,713
Norfolk & Western	2,822,746	3,005,722	3,372,600	3,511,689
Northern Pacific	* 511,156	* 667,612	* 226,462	* 388,145
Pennsylvania	2,962,894	2,500,233	5,283,799	4,694,596
Pere Marquette	371,743	270,173	558,609	461,531
Pittsburgh & Lake Erie	398,865	303,345	591,782	490,148
Reading	683,313	589,204	936,279	848,451
St. Louis-San Francisco[2]	* 195,685	* 817,953	56,551	* 564,451
St. Louis, San Francisco & Texas	* 13,244	* 45,868	* 13,244	* 45,799
St. Louis Southwestern[3]	208,156	* 76,617	262,362	* 24,307
Seaboard Air Line[1]	* 120,946	* 234,941	80,798	* 44,191
Southern	800,699	6,097	1,096,055	300,134
Southern Pacific[6]	1,165,131	* 929,882	1,829,284	* 266,612
Texas & Pacific	211,306	28,252	316,809	129,169
Union Pacific	607,603	1,112,780	1,277,835	1,737,918
Wabash[1]	34,288	* 259,859	215,209	* 80,237
Yazoo & Mississippi Valley	32,002	* 88,805	75,932	* 51,224

* Deficit.
[1] Report of receiver or receivers.
[2] Report of trustee or trustees.
[3] Under trusteeship, Erie R. R. only.
[4] Includes Atchison, Topeka & Santa Fe Ry., Gulf, Colorado & Santa Fe Ry., and Panhandle & Santa Fe Ry.
[5] Includes Boston & Albany, lessor to New York Central R. R.
[6] Includes Southern Pacific Company, Texas & New Orleans R. R., and leased lines. The report contains the following information: "Figures reported above for Southern Pacific Transportation System exclude offsetting debits and credits for interest on funded securities and rentals for leased properties between companies included therein. Operations for January, 1941 of separately operated Solely Controlled Affiliated Companies (excluding results for Southern Pacific Railroad Company of Mexico), not included in above statement, resulted in a net loss of $337,836. These results include $215,805 representing interest on bonds of such companies owned by Southern Pacific Company not taken into income by S. P. Co. and, therefore, not included in the January, 1941 income results for the System reported above. The combined results for January, 1941 for Southern Pacific Transportation System and separately operated Solely Controlled Affiliated Companies (excluding S. P. R. R. Co. of Mexico) amounted to a net income of $1,043,100. Figures herein given exclude results of Southern Pacific Railroad Company of Mexico for the reason that policy was adopted January 1, 1940 of making no further advances to that company, it being required to conduct its operations entirely within its own resources."

for January, while 82 reported net deficits; in January, 1940, there were 65 net incomes and 64 net deficits. The consolidated statement for all Class I roads and that showing net incomes or deficits of "large steam railways" are given in the accompanying tables.

Railroads Try Again for Blanket Fourth Section Relief

The Association of American Railroads and the American Short Line Railroad Association have applied to the Interstate Commerce Commission for reconsideration by the entire commission of Division 2's March 11 order denying the applicants' petition for blanket relief from the long-and-short-haul clause in order to simplify the publication of tariffs to cover situations where the departures are caused by circuitous rail and rail-water routes rather than by competing water lines. The proceeding is docketed as Fourth Section Application No. 18830, Circuitous Routes in the United States.

"The gist of the present application," the application says, "is that with respect to relief based on circuity the commission has heretofore been following a practice which, as a practical matter, is unworkable and has the effect of defeating the intent of the very provision of the act which it is designed to enforce. So serious a challenge of its functioning in such an important matter should not be summarily dismissed by the commission without a full hearing."

In the latter connection the original application had asked that the petitioners be given an opportunity to support it with testimony; but Divison 2's order of March 11 was entered "without a hearing of any sort." Cases cited by Division 2 in support of its action are said to fall short of giving such support, while in more recent cases "the commission has granted relief of precisely the same character" here sought.

Calls for Rates That Really Meet Competition

Over the protest of Commissioner Splawn, the Interstate Commerce Commission, Division 2, has found not justified reduced truck-competitive rates proposed by the railroads on gasoline, kerosene, and fuel oil, in tank car loads, from South Atlantic ports to destinations in North Carolina and South Carolina and certain destinations in Virginia and Florida. The majority decision, however, is without prejudice to the filing of new schedules publishing more moderate reductions than those proposed.

The majority reached its conclusion after considering the proposal in the light of all pertinent provisions of the Interstate Commerce Act, "including the provisions in the preamble as to preserving the inherent advantages of each regulated agency and as to unfair or destructive competitive practices and the provisions of section 15a(2) as to the effect on the movement of respondents' traffic, their revenue needs, and the public interest."

Dissenting Commissioner Splawn appraised the majority decision as one which "requires respondents to observe their present rates for distances up to 160 miles as minima and prevents them from making reductions for the longer hauls except in such amounts as to be of no practical benefit." In his view the proposed rates were "entirely necessary if respondents are to remain in position to compete for the traffic." Nevertheless he expressed the opinion that the courts would uphold the majority in view of the recent decision of the Supreme Court in the Northwest petroleum rate case. That decision, Mr. Splawn went on, "emphasizes the responsibility which is placed upon the commission. In the discharge of that responsibility it seems to me our guides continue to be the plain provisions of the statute.

"The facilities of our railroads are fundamentally adapted to mass transportation. While constructed at a relatively great cost they provide a low cost operation in furnishing such transportation. The full benefit of this low cost operation can be realized only when an adequate volume of traffic is available over which to spread the cost of providing and maintaining the facilities. The needs of the Southern roads for greater tonnage have long been apparent. One way to attract the desired volume is to adjust the rates to a level that the traffic can bear."

President Considers Changing Defense Transport Set-Up

President Roosevelt is having studies made with a view to determining where the transportation phase of the national defense program would logically fit into what the President called the larger picture which has been unfolding with the creation of the Office of Production Management and the Office of Price Administration and Civilian Supply under the Office for Emergency Management. Mr. Roosevelt revealed that such studies were being made when he announced the crea-

tion of the Office of Price Administration and Civilian Supply at his April 11 press conference.

His action in the latter connection, Mr. Roosevelt said left unaltered only two of the seven original components of the National Defense Advisory Commission—the commissionerships for Transportation and Agriculture. The other five original commissionerships were for industrial materials, industrial production, and employment which were merged into O. P. M., headed by William S. Knudsen as director and Sidney Hillman as associate director; and raw material prices, and consumer protection, now merged into the newly-created O. P. A. C. S., headed by Leon Henderson. Meanwhile publicity in connection with the national defense program has recently discontinued referring to the National Defense Advisory Commission. Activities under the direction of Ralph Budd have been referred to as those of the Transportation Division, Office for Emergency Management.

The Office for Emergency Management has been used by the President as the vehicle for developing his defense-program machinery. Authority for the creation of O. E. M. came in the government reorganization bill of 1937. O. P. M. and O. P. A. C. S., as indicated above, have been set up under it; how the Transportation and Agricultural divisions would next be brought into the larger picture the President was unable to say pending completion of the aforementioned studies in that connection.

14 Battle Wagons Sabotaged By the Big Ditch

"To resurrect and dust off the St. Lawrence Waterway scheme and promote such a proposal as necessary for the national defense challenges the intellect of Congress and prompts the question as to how long the American public will tolerate such expenditures after nine years of failing experiments in similar fields," declared Donald D. Conn, executive vice-president of the Transportation Association of America, before a mass meeting of labor and business leaders sponsored by the Chamber of Commerce of Pittsburgh, Pa., on April 10.

Pointing out that the cost of the seaway would defray the construction price of fourteen 35,000-ton battle ships; thirty 10,000-ton cruisers or one hundred twenty-five 1,800-ton destroyers, the speaker said that it is admitted in the agreement to be entered into with Canada that the project cannot be completed before 1948. In his opinion President Roosevelt's backing of the project is a direct contradiction to his recent plea for "speed and more speed."

Mr. Conn went on to assert that if Congress approves the development of the St. Lawrence Seaway, it will open the door for a series of vast expenditures on many other "doubtful domestic projects" such as the Florida Ship Canal, the Arkansas Valley Authority, the Tennessee-Tombigbee Canal, and many little TVA's—the aggregate cost of which will run into billions. "In the past three months, Congress has appropriated over 40 billion—which is twice the cost of the first World War; 1½ times the assets of the life insurance companies of America; over twice the outstanding capitalization of the American railroads. With the admitted public debt of 50 billion dollars plus local and state debts of 20 billion, these recent appropriations bring our total obligations to not less than $3,380 for the average family of four persons. This figure does not include the proposed expenditure for the St. Lawrence Waterway and the other useless public works being advocated at the present time.

"Isn't it about time that Congress classi-

fied all these proposals in order of their relative importance to the country in this emergency and postponed consideration and expenditures for public works which obviously we can get along without? Taxes during the next decade will stagger us. Inflation is just around the corner. Regardless of the merits of the St. Lawrence Seaway or any other domestic project, the plain truth of the situation is that the American people cannot afford to spend the money."

January Bus Revenues 17.6 Per Cent Above 1940

Class I motor carriers of passengers reported January revenues of $9,347,298 as compared with $7,947,586 in January, 1940, an increase of 17.6 per cent, according to the latest compilation prepared by the Interstate Commerce Commission's Bureau of Statistics from 146 reports representing 147 bus operators. Passengers carried increased 20.2 per cent, from 11,122,156 to 13,371,101.

The breakdown by regions of the bus revenue and traffic figures, which exclude data on charter or special party service, is given in the accompanying table.

	Passenger revenue		Passengers carried	
	January 1941	January 1940	January 1941	January 1940
New England Region	$374,836	$373,113	1,040,037	937,894
Middle Atlantic Region	1,174,838	1,156,337	2,593,911	2,353,761
Central Region	1,619,341	1,479,384	2,659,907	2,390,985
Southern Region	2,557,429	1,945,411	3,075,131	2,292,689
Northwestern Region	348,152	315,633	317,809	292,964
Mid Western Region	727,227	624,772	584,520	526,643
Southwestern Region	1,251,219	978,120	1,420,365	1,042,757
Rocky Mountain Region	87,054	86,120	70,504	77,004
Pacific Region	1,207,202	988,696	1,608,917	1,207,459

Retirement Board Regulations, Rulings, and Legal Opinions

The Railroad Retirement Board has ruled that a common carrier by railroad does not cease to be such by leasing its railroad to another carrier, but rather continues to operate its road through its lessee. If the leased road is being operated in interstate commerce, the lessor, under this ruling, is a common carrier by railroad subject to part I of the Interstate Commerce Act; as such, it is an employer subject to the Railroad Retirement and Unemployment Insurance Acts. The Board said that several hundred companies are affected by the ruling although only a small number of employees will be covered since these companies have few regular employees.

While reinstatement of an employee operates to maintain his employment relation throughout the breach in service, the Board's general counsel held in two recent opinions that the reinstatement must be made in good faith for the purpose of actual return to service, even if actual service is not resumed. In one of the two cases, the National Railroad Adjustment Board had ordered that an engineer be reinstated with his original seniority, thus clearly establishing the good faith of the action. After the Adjustment Board's decision, the engineer successfully passed the railroad's physical and visual examinations and was expected to return to service. He did not do so because he preferred to apply for an annuity, but it was clear that he intended to exercise his rights and return to work if an annuity were not forthcoming. His reinstatement was made in contemplation of returning to work, however, and the general counsel ruled that an employment relation had been maintained throughout the breach in service. Thus having an employment relation on August 29, 1935, the engineer was entitled to credit for service prior to January 1, 1937.

The other case involved an individual who was discharged by the railroad after instituting suit against it in connection with an alleged personal injury. After a number of personal appeals, he was finally reinstated with full seniority rights. His physical condition was such that he was unable to work, however, and he relinquished his rights shortly after being reinstated. The ruling held that the railroad had full knowledge of his physical condition and thus there was no contemplation of his return to actual service. The general counsel ruled that the individual did not have an employment relation during the interval prior to his reinstatement.

The value of room and board cannot be considered compensation under the Railroad Retirement and Unemployment Insurance Acts, according to another opinion of the general counsel, unless, before the performance of the service for which they are payment, the employer and employee agreed upon an amount in money to be paid for the job and that a part of this amount was to be paid in the form of room and board at an agreed valuation.

The Board has amended its regulations governing terminations of employer status, effective February 25, 1941.

In determining whether a cessation of an essential characteristic has occurred, the Board will now consider only final or complete cessation. Temporary periods of inactivity will not necessarily result in a loss of employer status.

* * * *

The Above Is Reproduced From a Couple of Pages in a Pamphlet, "You Can Defend America." Published by the "Moral Rearmament" Movement, 61 Gramercy Park, N., New York—This Movement Is Endorsed by the Railway Labor Executives—Looks Like Sense Except for the Locomotive Tenders

Railway Section Busy Planning Combat-Zone Railroading

Expanding War-Department activities in connection with the national defense program have been reflected in the additional work which has come to the Railway Section in the Office of the Chief of Engineers at Washington, D. C. The Railway Section might be described generally as a planning and technical agency which in peacetime prepares the way for such combat-zone railroad operations as may be required in wartime. And while combat-zone operations are actually conducted by the Military Railway Service, the Railway Section remains in wartime as a sort of "system committee" on technical matters such as equipment specifications, etc.

Normally one regular army officer is assigned to the Railway Section, which is now headed by Major L. T. Ross. Recently, however, the staff has been augmented by assignment to it of two reserve officers who have been called to active duty—one from the railway supply industry and the other from the railroad industry. They are Major Howard G. Hill, sales and service engineer for the Hennessy Lubricator Company, and Major Edwin W. Peterson, general storekeeper of the Bangor & Aroostook. Major Hill is assistant to the chief of the Section, while Major Peterson is assistant in charge

Continued on next left-hand page

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LIMA LOCOMOTIVE WORKS — LIMA LOCOMOTIVE WORKS INCORPORATED — INCORPORATED, LIMA, OHIO

of procurement; both were recently promoted from the rank of captain.

As indicated above, the Railway Section, generally speaking, keeps up to date the army's paper plans for wartime combat-zone railroad operations. Among other things it is in continuing contact with railroads for the purpose of promoting the organization of reserve units of the aforementioned Military Railway Service. With the coming of war, that Service, which is headed by Colonel Carl R. Gray, Jr., executive vice-president of the Chicago, St. Paul, Minneapolis & Omaha, would be activated for the job of railroading in the combat-zone. An example of the set-up is afforded by the army's plans to purchase the Red River & Gulf for the purpose of training a railway operating battalion. The Railway Section has been doing the work in connection with the acquisition of the road, equipping it for the training job, and getting the battalion organized. As announced by the War Department on April 10, the 711th Engineer Battalion, Railway Operating, will be activated to operate the road; and, when the 711th takes over, the Railway Section will be out of the Red River & Gulf picture except for its role in connection with technical questions. As to administrative control and training, the battalion will come under the engineer of the Third Army, in the area of which the road is located.

While it is understood that no further expansion is in sight under present conditions, a wartime basis for the Railway Section would perhaps involve an expansion which would take the form of breaking up the work for assignment to various newly-organized "branches" within the Section. Under such a set-up, Col. C. D. Young, vice-president of the Pennsylvania, would probably be called into active service to head the Section, while the regular army officer in charge at the time would become executive officer under Col. Young.

Major Hill, the first of the aforementioned reserve officers recently assigned to the Section, began his railway career as an apprentice machinist on the Southern Pacific's Texas and Louisiana Lines in August, 1914. Subsequently he served in turn as draftsman, inspector, instructor of apprentices, locomotive fireman, brakeman, and mechanical engineer in charge of locomotive valuation work. Next, Major Hill was associated with the Texas Corporation for 14 years as machine designer, lubricating engineer, and engineer of tests, principally in connection with railway equipment lubrication tests and development work on railroads. Since 1935 he has been specializing in railway equipment lubrication, principally as sales and service engineer for the Hennessy Lubricator Company.

Major Peterson was born in Boston, Mass., March 12, 1890, and entered railroad service in 1908 as a junior clerk and messenger in the master mechanic's office on the Boston & Albany. He held several other clerical positions with that road up to 1917 when he became chief clerk to the general storekeeper, a position which he held until March, 1920. On the latter date Major Peterson assumed his present position as general storekeeper for the Bangor & Aroostook.

Construction

BALTIMORE & OHIO.—This company has awarded contracts for construction work at the team track yard in the Georgetown section of Washington, D. C., as follows: To the Empire Construction Company of Baltimore, Md., for reconstruction of bulkhead, grading, etc., at an estimated cost of $107,000 and to Corson & Gruman, Inc., of Washington, D. C., for paving, etc., at an estimated cost of $32,000. The company has also awarded a contract to the E. J. Dougherty Construction Company of Baltimore, Md., for reconstruction and strengthening of bridges between Burnsville and Weese, W. Va., at an estimated cost of $165,000.

BESSEMER & LAKE ERIE.—This company has authorized construction of new yard tracks at Shenango, Pa., at estimated cost of $39,300. The work will be done by company forces.

CANADIAN PACIFIC.—A contract has been awarded the Bird Construction Company, Winnipeg, Man., for the construction of a one-story extension to the tender shop and also a small additional building adjacent to the tender shop at Weston, Man. The buildings will be of brick construction with concrete foundations and will cost approximately $80,000.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract amounting to approximately $28,000 has been awarded the El Reno Construction Company, El Reno, Okla., for the construction of a 12 ft. by 12 ft. by 121 ft. and a 12 ft. by 10 ft. by 165 ft. reinforced concrete boxes about 3 miles east of Weatherford, Okla., which will replace one 14-panel and one 15-panel pile trestle bridges, respectively. The embankment for filling the bridge openings will be placed by the railroad.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract amounting to approximately $35,000 has been awarded List & Weatherly, Kansas City, Mo., for the construction of the concrete substructure and the erection of steel spans on three bridges as follows: At Bridge 260 south of Chariton, Iowa, two 70-ft. deck plate girder spans with concrete bank block abutments on steel piling will be installed one at each end of an existing 100-ft. deck plate girder span, replacing 15 panels of pile trestle. At Bridge 929 near Elkhart, Iowa, one 75-ft. deck plate girder span and two 44-ft. deck plate girder spans, on concrete piers and abutments supported on monotube steel piling, will be installed to replace an 11-panel ballast deck pile trestle. At Bridge 1576 near Iowa Falls, Iowa, an 80-ft. deck plate girder and two 35-ft. I-beam spans supported on concrete piers resting on rock and on bank block abutments with steel bearing piles, will replace a 9-panel ballast deck pile trestle. The total cost of the work will be about $100,000.

LONG ISLAND.—This company has awarded contracts in connection with the Rockaway Beach elimination project as follows: To the Del Balso Construction Corporation of New York for construction of permanent highway facilities, Hammel to Rockaway Park, N. Y., at an estimated cost of $330,000 and to Charles F. Vachris, Inc., of Brooklyn, N. Y., for permanent structures, Mott avenue to city line, N. Y., at an estimated cost of $426,000.

NEW YORK CENTRAL.—This company has awarded a contract to the Duffy Construction Company of New York for alterations to the first and third floors of the St. John's Park freight terminal, New York.

SOUTHERN PACIFIC.—A low bid of approximately $86,000 has been submitted to the Texas Highway Department by the Rex D. Kitchens Construction Company, Austin, Tex., for the construction of an underpass and adjacent roadway approaches for the U. S. Highway No. 90 under the main track of the Texas & New Orleans (Southern Pacific) near the west city limits of Flatonia, Tex. The underpass structure will have a roadway clearance of 44 ft. horizontally and a minimum of 14½ ft. vertically. The superstructure will consist of an I-beam span to provide for the main track and a turnout for a transfer track, and an I-beam span for a wye track. The substructure will consist of reinforced concrete abutments. The railroad traffic, during construction of the underpass structure, is to be carried on a temporary shoo-fly track.

UNION PACIFIC.—Contracts have been awarded to Fairbanks, Morse & Company, Chicago, for furnishing materials and erecting coaling stations at Echo, Utah, and Evanston, Wyo. Both coaling stations will be of reinforced concrete construction with an overhead storage capacity of 200 tons and will be complete with sand and water facilities as well. The elevating machinery will be of the skip-hoist type, electrically driven, and will have a capacity of 50 tons per hour. The Echo coaling station will permit coaling locomotives on two main tracks, and will cost approximately $68,000. The Evanston coaling station will provide coaling locomotives on two main tracks and two side tracks, and will cost about $75,000.

WAR DEPARTMENT.—A contract for the construction of 19.85 miles of main line and approximately 10 miles of yard tracks and sidings for Fort Leonard Wood, Mo., south of Rolla, Mo., has been awarded the K. N. W. L. Construction Company composed of the following companies: W. A. Klinger, Inc., Western Contracting Corporation, and C. F. Lytle all of Sioux City, Iowa, and Arthur H. Neuman & Bros., Inc., Des Moines, Iowa. The railroad construction will cost approximately $2,154,000 and involves 503,961 cu. yd. of earth excavation, 267,576 cu. yd. of rock excavation and 1,025,866 cu. yd. of embankment. Two steel truss bridges with a total length of 304 ft. and 16 timber trestles with a total length of 3,681 ft. will be built. The line will have 70 curves, with a maximum curvature of 8 deg. The maximum grade will be 2.26 per cent and the longest grade will be 6.17 miles long. The line will connect with the main line of the St. Louis-San Francisco near Rolla.

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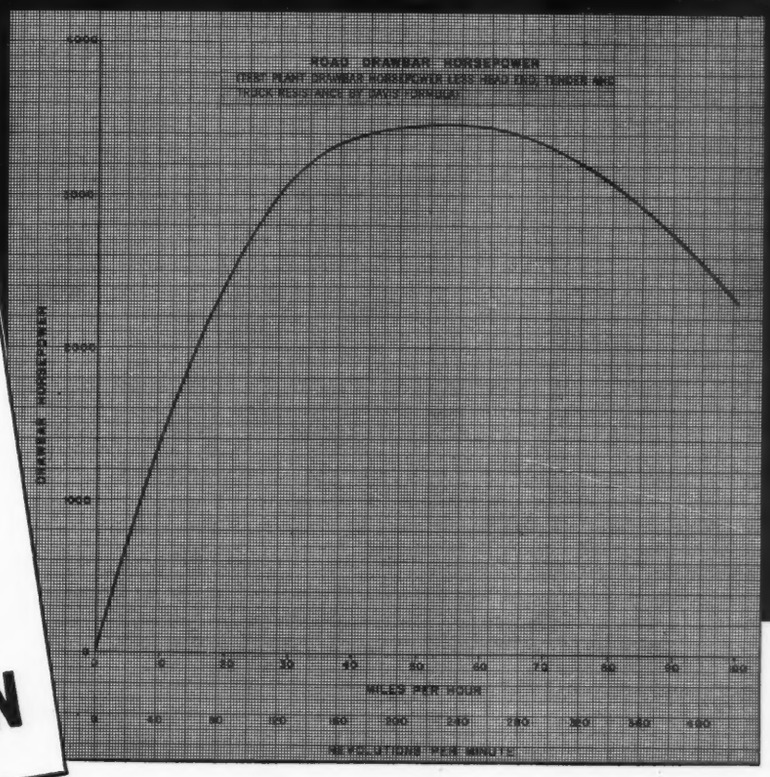
HIGHER SUSTAINED DRAWBAR HORSEPOWER

for Acceleration and Operating Speeds

through the Application of...

THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION



The Franklin System of Steam Distribution, by providing the following features, secures results such as are indicated in the above curve.

1. Separation of valve events, so that admission, cut-off, release and compression are independently controlled.
2. Absolutely fixed valve events at all speeds and all cut-offs.
3. Large inlet and exhaust passages and improved steam flow.
4. Reduced cylinder clearance volume.
5. Reduced weight of moving masses and reduced mechanical friction.

The Franklin System of Steam Distribution is offered to the railroads to meet the increasing demand for a more complete utilization of the potential power in every pound of steam.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK
CHICAGO
MONTREAL

Equipment and Supplies

LOCOMOTIVES

THE NEWFOUNDLAND RAILWAY has ordered one 2-8-2 type freight locomotive from the Montreal Locomotive Works, Ltd.

THE GREAT LAKES STEEL COMPANY has ordered two 600-hp. Diesel-electric switching locomotives from the Electro-Motive Corporation.

THE DETROIT, TOLEDO & IRONTON has ordered two 600-hp. Diesel-electric switching locomotives from the Electro-Motive Corporation.

THE DENVER & RIO GRANDE WESTERN has on order one 1,000-hp. Diesel-electric switching locomotive with the Electro-Motive Corporation.

THE BALTIMORE & OHIO has ordered four 4,000-hp. Diesel-electric passenger locomotives from the Electro-Motive Corporation. Inquiry for this equipment was reported in the *Railway Age* of February 22.

THE MINNESOTA TRANSFER RAILWAY has ordered three 360 hp. Diesel-electric switching locomotives from the American Locomotive Company. Inquiry for this equipment was reported in the *Railway Age* of February 15.

FREIGHT CARS

Erie Spends $5,000,000 for Freight Cars

The Erie has placed orders for a total of 1,600 freight cars, at estimated cost of $5,000,000, as follows:

800 50-ton 40½-ft. box cars to the Pullman-Standard Car Manufacturing Company.
100 50-ton 50½-ft. furniture cars to the American Car & Foundry Co.
100 50-ton 40½-ft. auto-box cars to the American Car & Foundry Co.
50 70-ton covered hopper cars to the American Car & Foundry Co.
250 50-ton center dump hopper cars to the General American Transportation Corporation.
250 70-ton 52½-ft. drop end mill type gondola cars to the Greenville Steel Car Company.
50 70-ton 53½-ft. flat cars to the Greenville Steel Car Company.

Correction

The 192 tank cars, reported in the *Railway Age* of April 12 as having been placed by the E. I. du Pont de Nemours & Co. with the American Car & Foundry Co., are small industrial cars of less than standard gauge for intra-plant use. The *Railway Age* was in error in reporting these as freight cars.

THE LOUISVILLE & NASHVILLE, reported in the *Railway Age* of April 12, to be in the market for 2,000 freight cars is asking for preliminary bids on 1,000 box cars and 1,000 hopper cars.

THE CHICAGO, ROCK ISLAND & PACIFIC has been authorized by the Federal District Court to purchase 1,000 50-ton box cars at a cost of $2,700,000. This company was reported in the *Railway Age* of April 12 as asking for prices on this equipment.

THE SOUTHERN PACIFIC is inquiring for four 200-ton flat cars.

THE GULF COAST LINES is reported to be contemplating the acquisition of 1,000 freight cars.

THE U. S. NAVY has ordered one flat car from the Greenville Steel Car Company.

THE BALTIMORE & OHIO has ordered 23 65-ft. 6-in. steel gondola cars of 70 tons' capacity from the Bethlehem Steel Company.

THE ILLINOIS CENTRAL has ordered 100 52-ft. flat cars of 50 tons' capacity from the American Car & Foundry Co. The inquiry for these cars was reported in the *Railway Age* of March 29.

THE NORFOLK & WESTERN is inquiring for from 500 to 1,000 40-ft. 6-in. steel-sheathed box cars of 50 tons' capacity and for from 200 to 500 50-ft. 6-in. steel-sheathed box cars of 50 tons' capacity.

THE UNITED STATES NAVY DEPARTMENT has ordered six 70-ton flat cars for White Plains, Md., Schedule 5581, from the Haffner-Thrall Car Company. Inquiry for this equipment was reported in the *Railway Age* of March 1.

PASSENGER CARS

THE ERIE is reported to be contemplating the acquisition of five express cars.

IRON AND STEEL

THE RUTLAND has ordered 500 tons of rails from the Bethlehem Steel Company.

THE ATLANTIC COAST LINE has ordered 8,500 tons of rails for 1941 requirements from the Tennessee Coal, Iron & Railroad Co.

THE UNION PACIFIC will start work this spring on the installation of new rails and block signals on 57 miles of main line between Fossil, Wyo., and Granger at a cost of $800,000 and $75,000 respectively.

THE ST. LOUIS SOUTHWESTERN has petitioned the district court for permission to spend $521,510 for new 112-lb. rails and fastenings to replace 85-lb. rails that have been in service for 21 to 23 years on about 42 miles of main line between Lewisville, Ark., and Redwater, Tex.

MOTOR VEHICLES

THE SOUTHEASTERN GREYHOUND LINES has ordered eight motor coaches, three of which will be air-conditioned, from the a.c.f. Motors Company.

THE MAINE CENTRAL TRANSPORTATION COMPANY has ordered two motor coaches and the BANGOR & AROOSTOOK one motor coach from the a.c.f. Motors Company.

Supply Trade

Walter Davis has been appointed west coast representative of the **Graham-White Sander Company** of Roanoke, Va.

Frank S. Williams has been placed in charge of eastern sales for the **Wilson Engineering Corporation,** Chicago, with headquarters at Providence, R. I. Since graduation from Yale University in 1914 he completed a special apprenticeship course in the shops of the Colorado & Southern and has served the Union Pacific, the Denver & Rio Grande Western and the Chicago, Rock Island & Pacific as transportation inspector.

J. E. Skinner has been placed in charge of welding wire sales, as assistant to W. H. Bleecker, sales manager, at the general sales office of the Page Steel & Wire division, **American Chain & Cable Co., Inc.** He succeeds **V. H. Godfrey,** who has been called to active duty with the United States Navy. **W. H. Hoagland** of the Chicago office of the Page Steel & Wire division has been transferred to Monessen, Pa., to assume the duties previously handled by Mr. Skinner.

OBITUARY

Frederick C. Bryan, for thirty years general traffic manager of the Allis-Chalmers Manufacturing Company, died at Milwaukee, Wis., on April 7.

Fred J. Wilson, who until his retirement in 1935 had handled sales of the locomotive equipment division of Manning, Maxwell & Moore, Inc., on the Pacific coast, died April 3 at his home in Alhambra, Cal.

Charles B. Collins, who on January 1, 1938, resigned as assistant vice-president of the American Car & Foundry Corp., with headquarters at St. Louis, to become a manufacturer's agent, died in St. Louis on April 6 of a heart ailment.

TRADE PUBLICATION

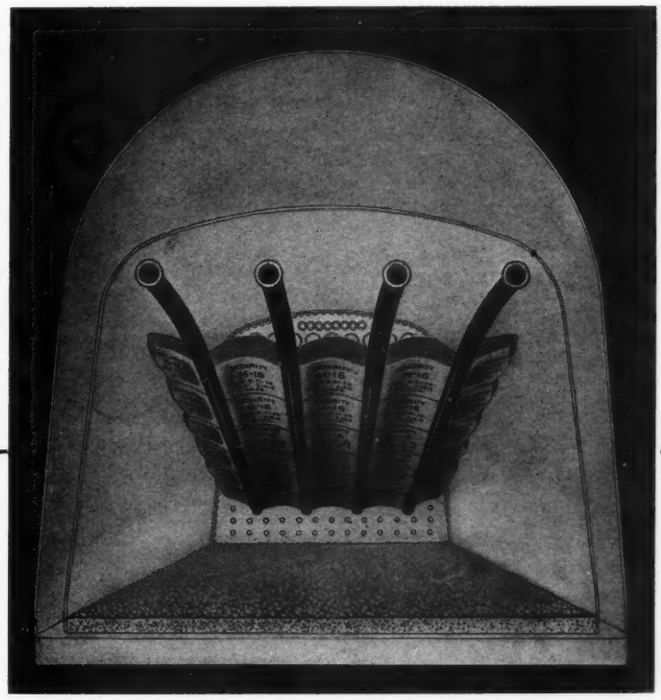
FABRICATION OF ALLEGHENY STAINLESS STEELS.—A 28-page bulletin (B 109 Rev., 2-6-141), has been published by the Allegheny Ludlum Steel Corporation, Pittsburgh, Pa., discussing the fabrication of the principal types of stainless steels manufactured by this company, including the austenitic chromium, nickel and iron alloys and the various grades of straight chromium-iron alloys. The processes discussed include welding, drawing and blanking, machining, spinning, upsetting and forging, riveting, shearing, soldering and brazing, annealing and heat treatment, grinding, polishing, buffing and surface treatment. The bulletin also recommends machine tool steels which have been developed by this company for use in these various operations.

Continued on next left-hand page

A CORRECT BRICK ARCH GUARANTEES

FULL FUEL ECONOMY

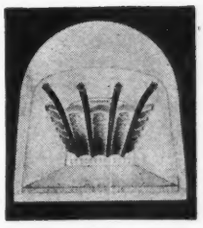
There is a carefully worked out design of the Security Brick Arch for every class of locomotive . . . This design guarantees maximum efficiency both as to fuel economy and hauling capacity . . . In modernizing existing power and in maintaining locomotives in active service, be sure the correct brick arch design is installed and be sure it is completely maintained.



There's More to
SECURITY ARCHES
Than Just Brick

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED
60 EAST 42nd STREET, NEW YORK, N. Y.
Locomotive Combustion Specialists

Financial

ALABAMA GREAT SOUTHERN.—*Annual Report.*—The 1940 annual report of this road shows net income, after interest and other charges, of $2,338,528, an increase of $227,477 as compared with net income in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$8,225,000	+$547,418
Maintenance of way	984,847	−6,071
Maintenance of equipment	1,700,030	+122,560
Transportation	2,346,980	+138,257
TOTAL OPERATING EXPENSES	5,478,497	+262,593
Operating ratio	66.61	−1.33
NET REVENUE FROM OPERATIONS	2,746,503	+284,825
Taxes	1,073,245	+191,021
Equipment rents	174,165	−168,650
Joint facility rents	150,265	−3,755
NET RAILWAY OPERATING INCOME	1,697,157	−71,092
Non-operating income	1,187,052	+289,661
TOTAL GROSS INCOME	2,884,209	+218,569
Rent for leased roads	19,649	−15
Interest on funded debt	423,840	.....
TOTAL DEDUCTIONS FROM GROSS INCOME	510,035	−7,013
NET INCOME	$2,338,528	+$227,477

ANN ARBOR.—*Annual Report*—The 1940 annual report for this company shows net income, after interest and other charges, of $23,448, compared with a net deficit of $66,477 in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	293.86	.....
RAILWAY OPERATING REVENUES	$4,141,145	+$176,341
Maintenance of way	376,057	+40,926
Maintenance of equipment	797,318	−3,606
Transportation	1,773,589	+34,280
TOTAL OPERATING EXPENSES	3,248,881	+76,130
NET REVENUE FROM OPERATIONS	892,264	+100,211
Railway tax accruals	283,043	+20,398
Railway operating income	609,221	+79,813
Net Rents—Dr.	158,930	−1,915
NET RAILWAY OPERATING INCOME	450,291	+81,728
Total other income	13,210	−3,438
TOTAL INCOME	463,501	+78,289
Rent for leased roads and equipment	25,252	−2,589
Interest on funded debt—Fixed interest	409,860	+283
TOTAL FIXED CHARGES	435,415	−11,361
NET INCOME	$23,448	+$89,925

BOSTON & MAINE.—*Bonds of the Newport & Richford.*—The Newport & Richford has asked the Interstate Commerce Commission for authority to issue $350,000 of first mortgage, four per cent, sinking fund bonds, which will be exchanged for a like amount of its five per cent, 30-year, first mortgage, gold bonds dated January 2, 1911 and maturing January 1, 1941. The new bonds will be dated January 2, 1941, will mature January 1, 1966, and will be guaranteed by the Connecticut & Passumpsic Rivers, which has asked the commission for such authority.

ATCHISON, TOPEKA & SANTA FE.—*Annual Report.*—The 1940 annual report for this company shows net income, after interest and other charges, of $12,745,371, compared with a net income of $8,490,832 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$170,003,639	+$9,963,673
Maintenance of way and structures	24,348,628	+623,787
Maintenance of equipment	35,841,738	+1,256,876
Transportation—Rail	59,509,400	+2,260,045
TOTAL OPERATING EXPENSES	129,656,637	+4,321,932
NET REVENUE FROM OPERATIONS	40,347,002	+5,641,740
Railway tax accruals	17,159,640	+1,674,972
Railway operating income	23,187,362	+3,966,769
Net equipment and joint facility rents—Cr.	830,263	+879,990
NET RAILWAY OPERATING INCOME	24,017,625	+4,846,759
Other income	2,373,535	−511,888
TOTAL INCOME	26,391,160	+4,334,871
Rent for leased roads and equipment	1,595	+38
Interest on funded debt	13,152,998	+162,053
TOTAL DEDUCTIONS FROM GROSS INCOME	13,645,789	+80,332
NET INCOME	$12,745,371	+$4,254,438

CHICAGO & NORTH WESTERN.—*Annual Report.*—The 1940 annual report of this road shows net deficit, after interest and other charges, of $5,222,369, an increase of $3,887,499 as compared with net deficit in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average Mileage Operated	8,324	−25
RAILWAY OPERATING REVENUES	$92,800,307	+$5,549,847
Maintenance of way	13,344,463	−516,807
Maintenance of equipment	17,909,154	+372,790
Transportation	35,820,474	+996,313
TOTAL OPERATING EXPENSES	73,162,961	+888,088
Operating ratio	78.8	−4.0
NET REVENUE FROM OPERATIONS	19,637,346	+4,661,759
Railway tax accruals	6,599,291	+406,281
Equipment rents—Net	2,817,852	−80,805
Joint facility rents—Net	125,703	−35,957
NET RAILWAY OPERATING INCOME	10,094,500	+4,372,240
Other income	1,441,314	−331,714
TOTAL INCOME	11,535,814	+4,040,526
Rent for leased roads	5,427	+460
Interest on funded debt*	16,295,367	−85,583
TOTAL FIXED CHARGES	16,447,034	−8,315
NET DEFICIT	$5,222,369	−$3,887,499

* Includes interest accrued on matured bonds and notes. Year 1939 revised to conform to changes in I. C. C. requirements effective Jan. 1, 1940.

CHESAPEAKE & OHIO.—*Redemption of bonds.*—This road has given notice that it will redeem and pay off, on April 28, $29,100,000 of outstanding refunding and improvement mortgage 3½'s, Series F, due December 1, 1963, at 105 per cent of principal amount, together with accrued interest. Funds for the redemption are being obtained from an issue of $24,800,000 of new refunding and improvement mortgage bonds and treasury cash.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—*Equipment Trust Certificates.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for $3,120,000 of 2⅛ per cent equipment trust certificates, maturing in 20 equal semi-annual installments of $156,000 on April 1 and October 1, beginning October 1, 1941, and ending April 1, 1951. The issue has been sold at 100.053 to a group comprised of Drexel & Co., Harris, Hall & Co., and the Illinois Company of Chicago, making the average annual cost to the company approximately 2.1 per cent.

CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA.—*Annual Report.*—The 1940 annual report of this road shows net deficit, after interest and other charges, of $2,046,877, a decrease of $58,271 as compared with net deficit in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average Mileage Operated	1,629	.....
RAILWAY OPERATING REVENUES	$18,078,966	+$327,277
Maintenance of way	2,518,556	−41,563
Maintenance of equipment	3,065,350	+42,374
Transportation	8,097,848	−1,628
TOTAL OPERATING EXPENSES	14,952,323	+122,782
Operating ratio	82.7	−0.8
NET REVENUE FROM OPERATIONS	3,126,643	+204,495
Railway tax accruals	1,372,104	+63,852
Equipment rents—net	977,745	+30,773
Joint facility rents—net	369,925	+16,557
NET RAILWAY OPERATING INCOME	406,869	+93,313
Other income	67,135	−886
TOTAL INCOME	474,004	+92,427
Rent for leased roads	1,703	.....
Interest on funded debt	2,320,360	−1,995
TOTAL FIXED CHARGES	2,515,429	+34,434
NET DEFICIT	$2,046,877	−$58,271

FLORIDA EAST COAST.—*Ratification of Trustees.*—Division 4 of the Interstate Commerce Commission has ratified the appointments of Scott M. Loftin and Edward W. Lane as trustees of this company in reorganization proceedings under section 77 of the Bankruptcy Act. Mr. Loftin was formerly a co-receiver of the property under the old equity proceedings in bankruptcy.

GREENBRIER, CHEAT & ELK.—*Bond Sale.*—A total of $2,000,000 of 3, 3½ and 4 per cent first mortgage bonds of this road were offered publicly on April 14 by a banking group composed of Dick & Merle Smith, Salomon Bros. & Hutzler and Stroud & Co., Inc. The offering consists of $875,000 of serials and $1,125,000 of

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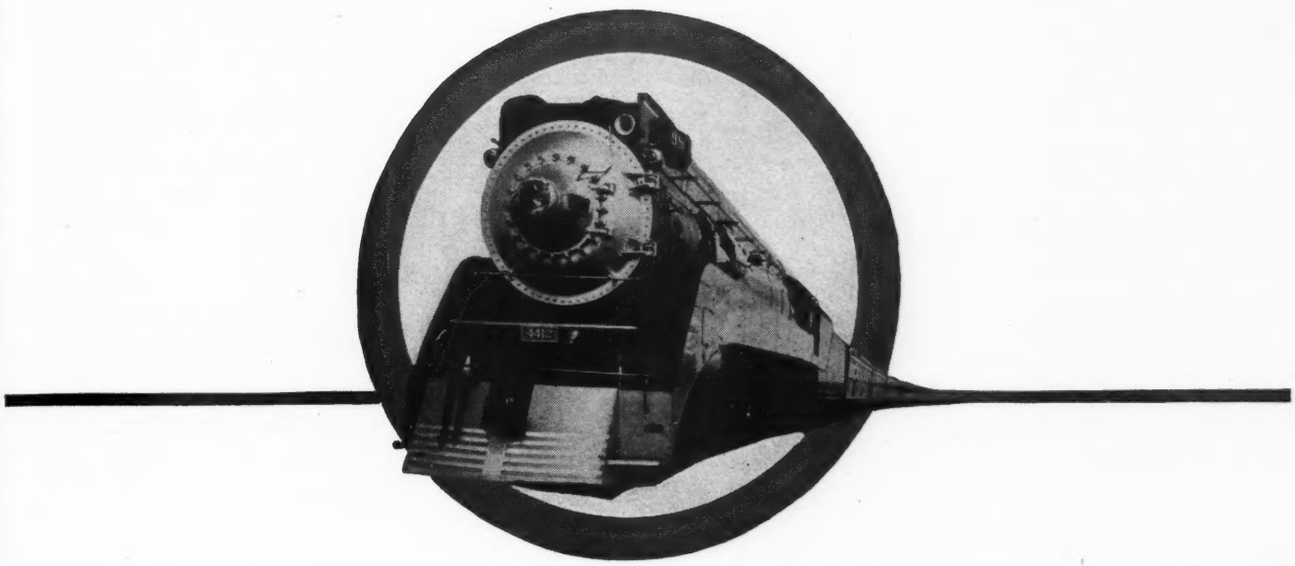
THE SUPERHEATER

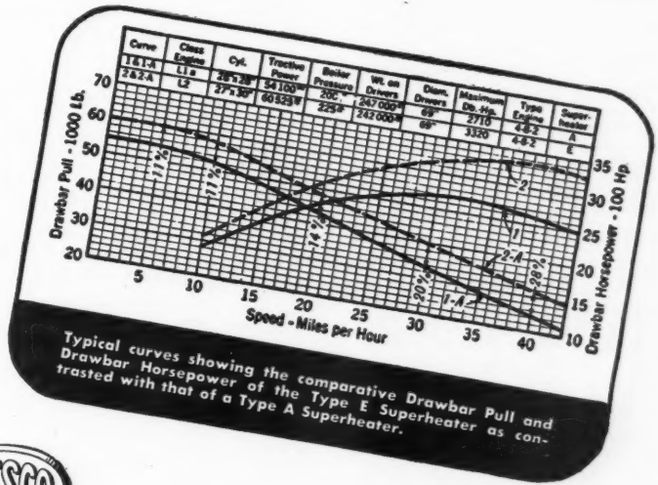


FOR YOUR NEW POWER

Your new power must furnish better service at lower cost. Better service requires higher sustained speeds. Lower cost requires greater trainloads. Both these essentials are met by the modern super steam locomotives, which, in large measure, have been made possible by developments of the locomotive superheater.

The small-tube superheater arrangement – the Elesco type "E" superheater—which was developed especially to meet the demands of modern locomotive operation, gives a 20 per cent increase in the sustained horsepower capacity. This is because it increases true boiler efficiency, makes possible increased evaporating surface, and provides higher degree superheat which reduces steam consumption of the cylinders. With an increase in steam area through the superheater of as high as 30 per cent, the Elesco type "E" superheater reduces the pressure drop between boiler and cylinders, thereby giving added cylinder power.

These improvements in superheater design, as embodied in the Elesco type "E" superheater, should be a part of the new locomotives that are needed to haul your traffic faster and more economically.



Typical curves showing the comparative Drawbar Pull and Drawbar Horsepower of the Type E Superheater as contrasted with that of a Type A Superheater.

ELESCO

THE SUPERHEATER COMPANY

Representative of

AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK • 122 S. Michigan Avenue, CHICAGO

Montreal, Canada: THE SUPERHEATER COMPANY, LTD.

SUPERHEATERS • FEEDWATER HEATERS • AMERICAN THROTTLES • STEAM DRYERS • EXHAUST STEAM INJECTORS • PYROMETERS

sinking fund term bonds. Of the serials, $500,000 are 3's, due 1942 to 1946, priced to yield 0.75 to 2.50 per cent, and $375,000 are 3½'s due 1947 to 1951, priced to yield 2.75 to 3.50 per cent. The $1,125,000 term bonds are 4's, due 1966, priced at 101.

The Greenbrier, Cheat & Elk is to be leased to the Western Maryland for 25 years from May 15, 1941. Rental payments and advances to be made thereunder will be sufficient to pay interest, principal installments and sinking fund payments on the first mortgage bonds. The bonds will be guaranteed by the Western Maryland.

GULF, MOBILE & OHIO.—*New directors.*—E. A. Stephens of New Orleans, La., N. Stockhammer of New York, and C. B. Stout of Memphis, Tenn., were elected directors of this road at the annual meeting of stockholders on April 14.

INDIANA HARBOR BELT.—*Annual Report.*—The 1940 annual report of this company show net income, after interest and other charges, of $1,116,603, a decrease of $647,104 as compared with net income in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	124.66	+.04
RAILWAY OPERATING REVENUES	$12,176,818	+$685,296
TOTAL OPERATING EXPENSES	8,110,221	+1,012,205
Operating ratio	66.60	+4.83
NET REVENUE FROM OPERATIONS	4,066,597	−326,909
Railway tax accruals	1,160,988	+159,997
Railway operating income	2,905,609	−486,906
Equipment rents—Net Dr.	964,178	+159,558
Joint facility rents—Net Dr.	359,512	+25,983
NET RAILWAY OPERATING INCOME	1,581,919	−672,447
Other income	31,865	+2,995
TOTAL INCOME	1,613,784	−669,452
Rent for leased roads and equipment	39,978	+1,320
Interest on funded debt	394,000	−520
TOTAL FIXED CHARGES	457,497	+14,884
NET INCOME	$1,116,603	−$647,104

KANSAS CITY SOUTHERN.—*Annual Report.*—The 1940 annual report for this company shows net income of $1,132,313, after interest and other charges, compared with a net income of $794,319 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Average Mileage Operated	878.78	.....
RAILWAY OPERATING REVENUES	$14,382,380	+$997,491
Maintenance of way	1,281,836	+121,828
Maintenance of equipment	2,148,162	+169,139
Transportation	4,165,818	+242,579
TOTAL OPERATING EXPENSES	8,971,669	+591,699
Operating ratio	71.22	−.70
NET REVENUE FROM OPERATIONS	5,410,711	+405,792
Railway tax accruals	1,270,921	+24,921
Railway operating income	4,139,790	+380,871
Equipment rents—Net Dr.	612,455	+133,760
Joint facility rents—Net Dr.	107,292	−15,900
NET RAILWAY OPERATING INCOME	3,420,043	+263,011
Total other income	619,139	+249,316
TOTAL INCOME	4,039,182	+512,326
Rent for leased roads	15,501	.....
Interest on funded debt—Fixed Interest	2,801,135	+120,012
TOTAL FIXED CHARGES	2,870,391	+171,120
NET INCOME	1,132,313	+337,994
Disposition of net income: Dividend Appropriations of Income—Preferred Stock Dividend No. 109	210,000	.....
INCOME BALANCE TRANSFERRED TO PROFIT AND LOSS	$922,313	+$337,994

LEHIGH VALLEY.—*Annual Report.*—The 1940 annual report of this road shows net deficit, after interest and other charges, of $301,026, an increase of $242,470 over the 1939 net deficit. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	1,275	−7.81
RAILWAY OPERATING REVENUES	$47,479,837	+$2,120,850
Maintenance of way	3,165,959	+134,062
Maintenance of equipment	7,769,754	−154,299
Transportation	19,520,585	+461,942
TOTAL OPERATING EXPENSES	33,223,585	+431,340
Operating ratio	69.97	−2.32
NET REVENUES FROM OPERATIONS	14,256,251	+1,689,510
Railway tax accruals	4,758,170	+1,742,986
Equipment rents—Net	2,456,332	+163,526
Joint facility rents—Net	158,487	+49,063
NET RAILWAY OPERATING INCOME	6,883,261	−266,065
Non-operating income	780,616	−15,872
TOTAL INCOME	7,663,877	−281,937
Rent for leased roads	2,536,811	−107,652
Interest on funded debt	4,261,958	+9,284
TOTAL DEDUCTIONS FROM GROSS INCOME	7,964,903	−39,467
NET DEFICIT	$301,026	+242,471

LOUISIANA & ARKANSAS.—*Annual Report.*—The 1940 annual report for this company shows net income, after interest and other charges, of $789,796, compared with a net income of $737,630 in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$8,320,858	+$1,184,170
TOTAL OPERATING EXPENSES	5,427,453	+957,340
NET REVENUE FROM OPERATIONS	2,893,405	+226,830
Railway tax accruals	571,209	−50,304
Railway operating income	2,322,196	+277,134
Net Rents—Dr.	591,069	+143,894
NET RAILWAY OPERATING INCOME	1,731,127	+133,241
Total other income	41,919	−14,496
TOTAL INCOME	1,773,046	+118,745
Rent for leased roads	59,324	+47,772
Interest on funded debt—Interest fixed	885,955	+15,114
TOTAL FIXED CHARGES	963,012	+67,296
NET INCOME	$789,796	+$52,166

NEW YORK CENTRAL.—*Repayment of Notes.*—The New York Central repaid, on April 14, $5,000,000 of three-year, secured promissory notes issued in 1938 and due to mature September 12, 1941. Repayment was made with the consent of the National City Bank and the Reconstruction Finance Corporation.

NEW ORLEANS & NORTHEASTERN.—*Annual Report.*—The 1940 annual report for this company shows net income, after interest and other charges of $311,055, compared with a net income of $133,592 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$3,359,932	+$252,024
Maintenance of way and structures	420,474	+28,256
Maintenance of equipment	420,162	+6,871
Transportation	951,820	+49,232
TOTAL OPERATING EXPENSES	2,014,553	+96,826
NET REVENUE FROM OPERATIONS	1,345,379	+155,198
Railway tax accruals	388,368	−19,706
Hire of equipment	397,696	−5,712
Joint facility rents—Dr.	116,454	−8,559
NET RAILWAY OPERATING INCOME	675,770	+172,057
Non-operating income	25,383	−324
GROSS INCOME	701,153	+171,733
Interest on funded debt	387,567	−4,758
TOTAL DEDUCTIONS FROM GROSS INCOME	390,097	−5,730
NET INCOME	$311,055	+$177,463

PENNSYLVANIA.—*Abandonment.* — This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon its so-called Pennville branch extending from a connection with the Clearfield branch at Grampian, Pa., to the end of the line, 1.6 miles.

PEORIA & EASTERN.—*Annual Report.*—The 1940 annual report for this company shows net income, after interest and other charges, of $136,791, compared with a net income of $247,376 in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
RAILWAY OPERATING REVENUES	$2,546,755	+$30,266
Maintenance of way and structures	297,840	+26,586
Maintenance of equipment	517,000	+50,225
Transportation	1,062,821	+53,358
TOTAL OPERATING EXPENSES	2,043,641	+128,901
Operating ratio	80.24	+4.15
NET REVENUE FROM OPERATIONS	503,114	−98,635
Railway tax accruals	185,828	+8,609
Railway operating income	317,286	−107,244
Equipment rents—Net Dr.	156,177	+13,959
Joint facility rents—Net Dr.	58,482	−8,734

Net Railway Operating Income	102,628	−112,470
Total other income	42,376	+939
Gross Income	145,004	−111,532
Total Deductions from Gross Income	8,213	−946
Net Income	$136,791	−$110,586

Rutland.—*Annual Report.*—The annual report of this company for the year ended December 31, 1940, shows net deficit, after interest and other charges, of $435,817, an increase of $214,614 as compared with net deficit in 1939. Selected items from the income account follow:

	1940	Increase or Decrease Compared with 1939
Average Mileage Operated	407.29	
Railway Operating Revenues	$3,513,726	+$56,885
Maintenance of way	425,346	−3,170
Maintenance of equipment	735,862	+75,781
Transportation	1,867,274	+150,803
Total Operating Expenses	3,290,764	+237,223
Operating ratio	93.65	+5.32
Net Revenue from Operations	222,962	−180,337
Railway tax accruals	283,882	+43,562
Railway operating income	60,921*	−223,900
Equipment rents—Net Dr.	59,953	+9,352
Joint facility rents—Net Dr.	28,339	+5,273
Net Railway Operating Income	92,534*	−227,980
Other income	67,522	+11,378
Total Income	25,013*	−216,601
Rent for leased roads	15,000	
Interest on funded debt	388,395	−2,135
Total Fixed Charges	403,451	−3,103
Net Deficit	$435,817	+$214,614

* Deficit

Sacramento Northern.—*Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon 0.6 of a mile of line in Sacramento, Calif.

St. Louis Southwestern.—*Annual Report.*—The 1940 annual report of this company shows net deficit, after interest and other charges, of $248,758, a decrease of $1,769,563 as compared with net deficit in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Railway Operating Revenues	$20,642,003	+$1,032,038
Maintenance of way	3,339,221	−607,614
Maintenance of equipment	3,408,700	−98,766
Transportation	6,244,087	+24,301
Total Operating Expenses	14,958,176	−639,594
Operating ratio	72.46	−7.08
Net Revenue from Operations	5,683,827	+1,671,632
Railway tax accruals	1,322,338	−15,972
Railway operating income	4,361,489	+1,687,604
Net Rents—Dr.	1,565,898	+34,612
Net Railway Operating Income	2,795,591	+1,652,992
Other income	78,874	−1,632
Total Income	2,874,465	+1,651,360
Rent for leased roads and equipment	13,560	−5,186
Interest on funded debt	251,775	−5,704
Total Fixed Charges	3,108,980	−108,499
Net Deficit	$248,758	−$1,769,563

Southern Pacific.—*New Director.*—W. F. Bull, secretary of the Southern Pacific, with headquarters at San Francisco, Cal., has been elected a director of the company.

Southern Pacific. — *Abandonment.*—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon that portion of its so-called Knights Landing branch extending from Yuba City, Calif., to Marysville, 0.7 mile.

Toronto, Hamilton & Buffalo.—*Annual Report.*—The 1940 annual report of this company shows net income, after interest and other charges, of $369,937, an increase of $55,729 as compared with net income in 1939. Selected items from the income statement follow:

	1940	Increase or Decrease Compared with 1939
Average mileage operated	111.03	.....
Railway Operating Revenues	$2,397,511	+$558,602
Total Operating Expenses	1,463,843	+149,127
Operating ratio	61.06	−10.43
Net Revenue from Operations	933,668	+409,475
Railway tax accruals	421,563	+321,760
Railway operating income	512,105	+87.715
Equipment rents—Net Dr.	49,909	+41,322
Joint facility rents—Net Cr.	63,838	+847
Net Railway Operating Income	526,035	+47,240
Other income	165,577	+81,873
Gross Income	691,611	+129,113
Interest on funded debt	204,240	−1,009
Total Deductions from Gross Income	321,674	+73,384
Net Income	$369,937	+$55,729

Western Maryland.—*Bonds of Greenbrier, Cheat & Elk.*—This road has applied to the Interstate Commerce Commission for authority to assume liability as guarantor for $2,000,000 of first mortgage bonds which the Greenbrier, Cheat & Elk has applied for authority to issue. The bonds will consist of three and 3½ per cent serial bonds and four per cent term bonds; and the proceeds will be used to refund outstanding five per cent bonds.

Average Prices of Stocks and Bonds

	Apr. 15	Last week	Last year
Average price of 20 representative railway stocks..	29.05	29.63	31.56
Average price of 20 representative railway bonds..	64.17	64.60	59.76

Dividends Declared

Piedmont & Northern.—50¢, quarterly, payable April 21 to holders of record April 5.

Wheeling & Lake Erie.—5½ Per Cent Preferred, $1.38, quarterly; Prior Lien, $1.00, quarterly, both payable May 1 to holders of record April 26.

Railway Officers

EXECUTIVE

C. E. Simmons, vice-president and secretary of the New York, Ontario & Western, with headquarters at New York, was elected chairman of the board and president of the company at a meeting of the board of directors on April 9, succeeding **E. G. Buckland,** who has been chairman since 1929.

FINANCIAL, LEGAL AND ACCOUNTING

F. W. Tanneberger, transfer agent of the New York, Ontario & Western, with headquarters at New York, was elected secretary of the company at a meeting of the board of directors on April 9. Mr. Tanneberger succeeds **C. E. Simmons,** who has been elected chairman of the board and president of the company.

OPERATING

James Thomas McCorkle, whose promotion to superintendent of terminals on the Kansas City Southern, with headquarters at Kansas City, Mo., was reported in the *Railway Age* of April 12, was born at Little Rock, Ark., on September 5, 1888,

James Thomas McCorkle

and entered railway service in August, 1905, as a machinist apprentice in the Atlanta (Ga.) shops of the Southern. In 1907 he went with the Louisville & Nashville as a brakeman and later served as a conductor on the Atlanta division. He later served as a switchman for the Atlanta Terminal Company, and in train and yard service on the Union Pacific in Wyoming, Idaho and Kansas. During the first World War he served as a yardmaster in the U. S. Army, becoming a switchman on the Missouri-Kansas-Texas at Kansas City in 1919. Mr. McCorkle went with the K. C. S. on November 2, 1920, as an engine foreman at Kansas City, later being appointed yardmaster. In February, 1931, he was advanced to assistant general yardmaster and three years later he was promoted to general yardmaster. In June, 1937, Mr. Mc-

Continued on second left-hand page

The

Can Pull-Pull-Pull

LIKE the proverbial bulldog which pulls and pulls and never quits — the EMC 5400 hp. Diesel, the world's most powerful freight locomotive, can outpull and outperform any steam locomotive thus far built. This "Bulldog of the Rails" has greatest tonnage moving capacity, can operate continuously over long runs, and with its dynamic braking feature can handle trains down heavy grades faster, safer and with minimum brake applications — and at a greatly reduced cost of operation.

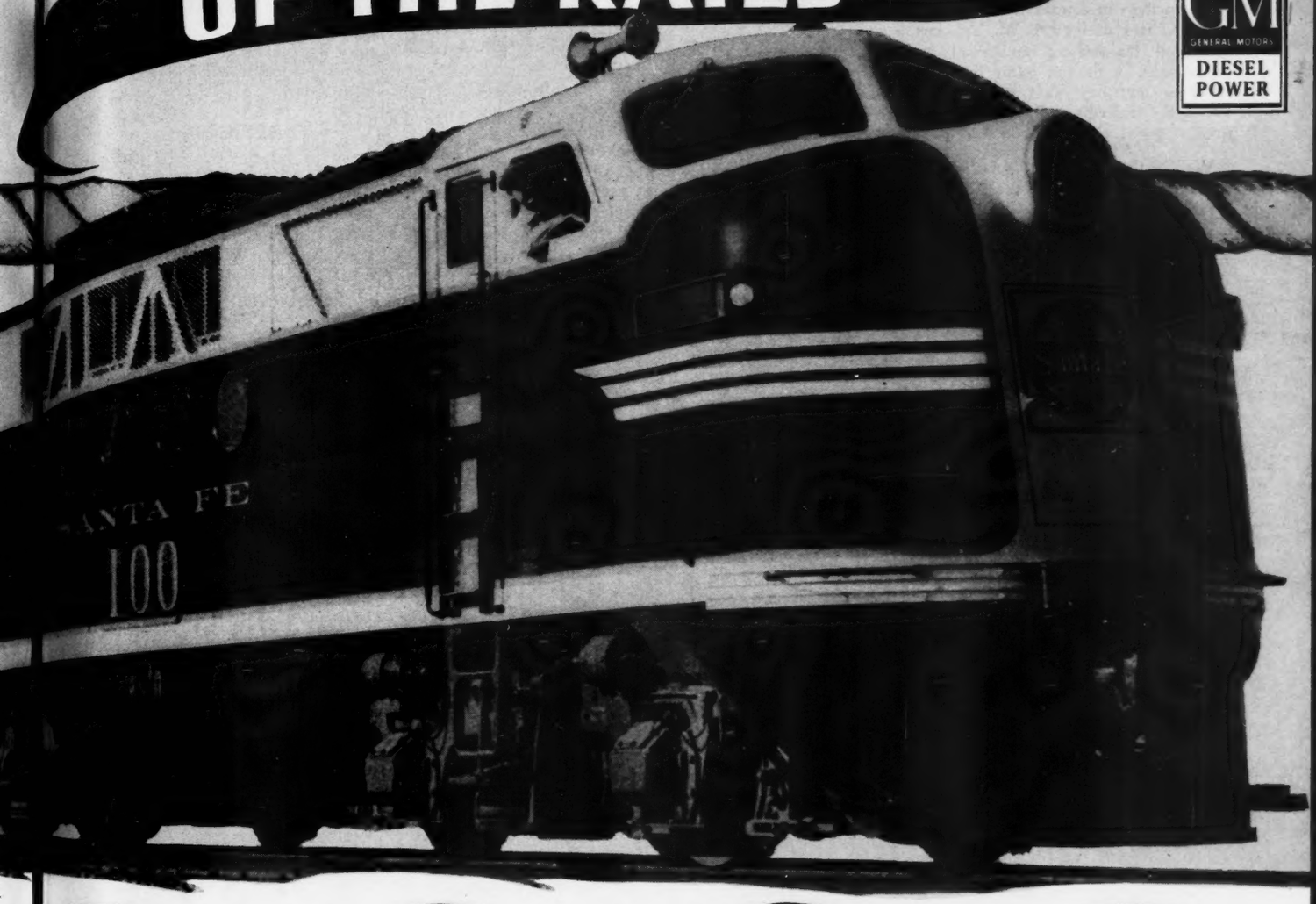
On a recent test trip between Argentine, Kansas, and Los Angeles, with no attempt for speed or tonnage records, Santa Fe 5400 hp. Diesel freight locomotive No. 100 with a maximum of 68 cars (3,150 tons) made the 1761.8 miles in 54 hrs. 35½ mins.

ELECTRO-MOTIVE

SUBSIDIARY OF GENERAL MOTORS

Bulldog OF THE RAILS

GM GENERAL MOTORS DIESEL POWER



Pull-Pull-Pull-Pull

running time—an average speed of 32.3 m.p.h. The locomotive demonstrated ample capacity for handling much heavier trains and at subsantially higher speeds.

One of the most outstanding features of the entire performance was the ability of this Diesel locomotive to make the entire trip with only four stops required for fuel and water; whereas a total of seven steam locomotives would generally be required to handle the same train on the same run with 12 stops required for fuel and water and 16 additional stops for water only.

BIGGER OPERATING ECONOMIES FOLLOW DIESEL EXPANSION

CORPORATION

LA GRANGE, ILLINOIS, U. S. A.

Corkle was advanced to assistant superintendent of terminals, the position he held until his recent promotion.

N. M. Lundberg has been appointed superintendent of automotive equipment of the Missouri Pacific Transportation Company (motor transport subsidiary of the Missouri Pacific), with headquarters at St. Louis, Mo., succeeding **H. P. McDonald.**

J. J. Callaham, road foreman of engines on the Chesapeake & Ohio with headquarters at Huntington, W. Va., has been appointed trainmaster and road foreman of engines, with the same headquarters, covering territory west of Peach Creek, W. Va., succeeding **C. L. Gilmore,** retired.

W. G. Cunningham, superintendent of the Dauphin division of the Canadian National, with headquarters at Dauphin, Man., has been transferred to the Winnipeg Terminal division, with headquarters at Winnipeg, Man., succeeding **J. J. Napier,** who in turn has been transferred to the Dauphin division, succeeding Mr. Cunningham.

Richard Acheson Gamble, whose retirement on March 31, as superintendent of the Winnipeg Terminals division of the Canadian Pacific, with headquarters at Winnipeg, Man., was announced in the *Railway Age* of April 5, was born in Dublin, Ireland, on March 1, 1875, and attended Wesley College, Dublin. He worked on railroad construction in 1891, but left railroad work to engage in water transportation the following year, serving in various positions from deck hand to mate. On March 1, 1900, he went with the Canadian Pacific as a watchman at Winnipeg, later being promoted successively to yard clerk, chief clerk, night yardmaster and chief clerk in the transportation department. On June 7, 1909, he was promoted to inspector of refrigerator service and weighing on the Western lines and on May 1, 1910, he was appointed fuel agent of the Alberta district. A year later Mr. Gamble was appointed car service and fuel agent at Moose Jaw, Sask., and on July 1, 1912, he returned to Winnipeg as general yardmaster. On June 1, 1917, he was advanced to acting superintendent and on September 1, 1918, he was appointed trainmaster and assistant superintendent. Mr. Gamble was promoted to superintendent of the Winnipeg Terminals division on March 27, 1927, which position he held until his retirement.

TRAFFIC

Alan Browning, commercial agent on the Central of Georgia, has been appointed general agent, freight department, with headquarters as before at Philadelphia, Pa.

Operating Revenues and Operating Expenses of Class I Railways

Compiled from 133 Monthly Reports of Revenues and Expenses Representing 137 Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF FEBRUARY, 1941 AND 1940

Item	United States		Eastern District		Southern District		Western District	
	1941	1940	1941	1940	1941	1940	1941	1940
Miles of road operated at close of month	232,417	233,052	57,271	57,391	44,217	44,360	130,929	131,301
Revenues:								
Freight	$296,145,630	$257,650,021	$131,439,343	$111,866,995	$61,860,538	$55,564,157	$102,845,749	$90,218,869
Passenger	36,511,235	31,944,512	18,516,513	16,934,964	7,160,496	6,283,766	10,834,226	8,725,782
Mail	7,944,520	7,694,949	2,951,205	2,940,305	1,394,563	1,339,470	3,598,752	3,415,174
Express	3,571,388	3,270,876	1,378,442	1,135,406	799,279	820,914	1,393,667	1,314,556
All other operating revenues	14,240,726	13,034,494	7,213,691	6,494,437	1,954,306	1,787,460	5,072,729	4,752,597
Railway operating revenues	358,413,499	313,594,852	161,499,194	139,372,107	73,169,182	65,795,767	123,745,123	108,426,978
Expenses:								
Maintenance of way and structures	36,145,377	33,222,303	15,215,779	13,507,341	7,338,711	6,949,224	13,590,887	12,765,738
Maintenance of equipment	71,265,850	64,985,513	33,308,829	29,498,742	13,390,235	12,940,965	24,566,786	22,545,806
Traffic	8,810,502	8,690,548	3,130,289	3,062,790	1,790,836	1,771,631	3,889,377	3,856,127
Transportation—Rail line	125,075,115	119,667,316	58,321,338	55,613,338	21,949,027	21,131,044	44,804,750	42,922,934
Transportation—Water line	597,968	506,906	.....	.....	.....	.....	597,968	506,906
Miscellaneous operations	3,312,680	3,103,965	1,412,610	1,349,829	605,728	579,023	1,294,342	1,175,113
General	10,585,439	10,585,388	4,209,991	4,232,979	2,069,560	2,036,529	4,305,888	4,315,880
Transportation for investment—Cr.	202,735	182,019	34,432	14,900	52,831	44,520	115,472	122,599
Railway operating expenses	255,590,196	240,579,920	115,564,404	107,250,119	47,091,266	45,363,896	92,934,526	87,965,905
Net revenue from railway operations	102,823,303	73,014,932	45,934,790	32,121,988	26,077,916	20,431,871	30,810,597	20,461,073
Railway tax accruals	34,325,812	29,718,722	14,566,489	12,361,158	8,428,581	6,703,118	11,330,742	10,654,446
Railway operating income	68,497,491	43,296,210	31,368,301	19,760,830	17,649,335	13,728,753	19,479,855	9,806,627
Equipment rents—Dr. balance	7,397,810	7,860,034	3,637,149	3,744,954	449,530	409,597	3,311,131	3,705,483
Joint facility rent—Dr. balance	2,620,812	2,579,687	1,340,977	1,369,398	274,729	265,631	1,005,106	944,658
Net railway operating income	58,478,869	32,856,489	26,390,175	14,646,478	16,925,076	13,053,525	15,163,618	5,156,486
Ratio of expenses to revenues (per cent)	71.3	76.7	71.6	77.0	64.4	68.9	75.1	81.1
Depreciation included in operating expenses	17,638,333	16,827,666	7,677,169	7,233,119	3,590,944	3,424,972	6,370,220	6,169,575
Pay roll taxes	9,500,586	9,092,686	4,243,733	4,071,599	1,710,484	1,684,448	3,546,369	3,336,639
All other taxes	24,825,226	20,626,036	10,322,756	8,289,559	6,718,097	5,018,670	7,784,373	7,317,807

FOR TWO MONTHS ENDED WITH FEBRUARY, 1941 AND 1940

Miles of road operated at close of month*	232,431	233,090	57,269	57,402	44,229	44,372	130,933	131,316
Revenues:								
Freight	$605,726,083	$540,784,038	$267,301,603	$237,808,859	$127,031,005	$115,184,670	$211,393,475	$187,790,509
Passenger	76,669,850	68,023,718	39,334,318	36,524,910	14,466,023	12,431,491	22,869,509	19,067,317
Mail	16,335,028	15,780,512	6,116,502	5,980,348	2,865,087	2,773,717	7,353,439	7,026,447
Express	6,977,227	6,750,948	2,592,276	2,498,007	1,567,759	1,620,316	2,817,192	2,632,625
All other operating revenues	30,079,501	27,894,758	15,222,398	14,028,561	4,088,002	3,749,960	10,769,101	10,116,237
Railway operating revenues	735,787,689	659,233,974	330,567,097	296,840,685	150,017,876	135,760,154	255,202,716	226,633,135
Expenses:								
Maintenance of way and structures	72,882,820	67,167,617	30,656,379	27,416,492	14,978,125	14,075,725	27,248,316	25,675,400
Maintenance of equipment	145,483,569	133,964,258	68,209,587	61,586,003	27,440,909	26,417,922	49,833,073	45,960,333
Traffic	17,685,759	17,514,773	6,281,504	6,203,815	3,622,577	3,594,782	7,781,678	7,716,176
Transportation—Rail line	259,045,192	250,517,409	120,043,844	116,427,497	45,441,822	44,139,039	93,559,526	89,950,873
Transportation—Water line	1,164,263	1,025,950	.....	.....	.....	.....	1,164,263	1,025,950
Miscellaneous operations	6,964,888	6,557,055	3,013,357	2,888,519	1,241,339	1,179,435	2,710,192	2,489,101
General	21,715,297	21,630,788	8,645,179	8,594,397	4,253,372	4,174,995	8,816,746	8,861,396
Transportation for investment—Cr.	382,710	401,955	56,681	65,793	92,421	92,112	233,608	244,050
Railway operating expenses	524,559,078	497,975,895	236,793,169	223,050,930	96,885,723	93,489,786	190,880,186	181,435,179
Net revenue from railway operations	211,228,611	161,258,079	93,773,928	73,789,755	53,132,153	42,270,368	64,322,530	45,197,956
Railway tax accruals	69,844,880	60,962,012	29,487,536	25,512,430	17,309,804	13,926,024	23,047,540	21,523,558
Railway operating income	141,383,731	100,296,067	64,286,392	48,277,325	35,822,349	28,344,344	41,274,990	23,674,398
Equipment rents—Dr. balance	15,196,696	16,238,375	7,176,696	7,953,267	886,337	921,358	7,133,663	7,363,750
Joint facility rent—Dr. balance	5,350,759	5,188,394	2,872,251	2,946,784	582,280	347,536	1,896,228	1,894,074
Net railway operating income	120,836,276	78,869,298	54,237,445	37,377,274	34,353,732	27,075,450	32,245,099	14,416,574
Ratio of expenses to revenues (per cent)	71.3	75.5	71.6	75.1	64.6	68.9	74.8	80.1
Depreciation included in operating expenses	35,295,147	33,699,279	15,415,615	14,545,602	7,156,972	6,828,857	12,722,560	12,324,820
Pay roll taxes	19,550,861	18,729,387	8,727,869	8,403,353	3,527,601	3,451,377	7,295,391	6,874,657
All other taxes	50,294,019	42,232,625	20,759,667	17,109,077	13,782,203	10,474,647	15,752,149	14,648,901

* Represents an average of the mileage reported at the close of each month within the period.

Compiled by the Bureau of Statistics, Interstate Commerce Commission. Subject to revision.

Continued on next left-hand page

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J. L. Power, general agent on the Illinois Terminal at St. Louis, Mo., has been appointed assistant general freight and passenger agent, with the same headquarters, a change of title.

ENGINEERING AND SIGNALING

Charles H. Splitstone, whose promotion to assistant chief engineer of the Erie, with headquarters at Cleveland, Ohio, was

Charles H. Splitstone

reported in the *Railway Age* of April 12, was born at Linesville, Pa., on January 19, 1878, and attended Pennsylvania State College. He entered railway service in 1901 as a rodman on the Pennsylvania, Lines West of Pittsburgh, at Bedford, Ohio. In 1903 he was promoted to chief of party, with headquarters at Chicago, and two years later was transferred to Pittsburgh, Pa. Mr. Splitstone went with the Erie in 1906 as a chief of party, later being promoted to resident engineer. In 1909 he was advanced to chief draftsman, with headquarters at New York, and four years later he was promoted to office engineer. In 1917 he was further advanced to superintendent of construction and in 1931, his headquarters were transferred to Cleveland, Ohio.

Kenneth B. Duncan, chief engineer of Gulf, Colorado & Santa Fe with headquar-

Kenneth B. Duncan

ters at Galveston, Tex., whose retirement on March 31 was reported in the *Railway Age* of April 12, was born at Princeton, Ind., on September 5, 1878, and attended Wabash College and Purdue University, graduating in civil engineering from the latter in 1902. He entered railway service in November, 1899, as an instrumentman on the Cleveland, Cincinnati, Chicago & St. Louis (Big Four), and from 1903 to 1904, he served as a draftsman on the G. C. & S. F., returning to Purdue University on the latter date as an instructor. He returned to railway service in 1905 as resident and division engineer on the construction of the Houston & Texas Central (now part of the Southern Pacific). In 1908, Mr. Duncan was appointed office engineer on the G. C. & S. F. and in 1913 he was made engineer of that road. He was promoted to valuation engineer in 1915, being further promoted to district engineer at Galveston in 1918. In August, 1930, Mr. Duncan was advanced to chief engineer, the position he held until his retirement.

W. W. Wilson, whose promotion to acting chief engineer of the Gulf, Colorado & Santa Fe, with headquarters at Galveston, Tex., was announced in the *Railway Age* of March 31, was born at Hearne, Tex., on January 2, 1882, and graduated in civil engineering from the University of Texas in 1906. Prior to his graduation,

W. W. Wilson

Mr. Wilson served the G. C. & S. F. as a track laborer from January, 1899, until January, 1901, and as an axeman in the engineering department from the latter date until September, 1902, on which date he left the service to enter school. In June, 1906, he re-entered the service of the G. C. & S. F. as a transitman on construction and maintenance and in April, 1909, he was promoted to assistant engineer on the Beaumont division. In January, 1910, Mr. Wilson was advanced to division engineer of the Galveston division, with headquarters at Galveston, and from November, 1918, until April, 1920, during federal control of the railways, he served as engineer maintenance of way of the Galveston Terminal Association, returning to the G. C. & S. F. as division engineer on the latter date. He was later transferred to the Southern division at Temple, Tex., and on August 15, 1930, he was advanced to district engineer, with headquarters at Galveston. In the latter part of 1939, the position of district engineer at Galveston was abolished, and Mr. Wilson was appointed division engineer, with the same headquarters, the position he held until his recent promotion.

Effective May 1, **Alfred E. Perlman,** engineer maintenance of way of the Denver & Rio Grande Western, will be promoted to chief engineer, with headquarters as before at Denver, Colo., succeeding

Alfred E. Perlman

Arthur O. Ridgway, who will retire on that date.

Mr. Perlman was born at St. Paul, Minn., on November 22, 1902, and graduated from the Massachusetts Institute of Technology in 1923. He also took a course in railway transportation at the Harvard School of Business Administration during the summer of 1930. He first entered railway service on June 8, 1918, with the Minneapolis, St. Paul & Sault Ste. Marie and served with various railroads during summer vacations from school. Following his graduation, Mr. Perlman entered the service of the Northern Pacific on July 7, 1923, as a construction draftsman. On July 11, 1924, he was made an extra-gang laborer and on March 1, 1925, he was appointed inspector of icing facilities at St. Paul, Minn. In April, 1926, Mr. Perlman was sent to Glendive, Mont., as assistant supervisor of

Arthur O. Ridgway

bridges and buildings and in November of the following year he was appointed roadmaster, with headquarters at Carrington,

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N. D., being transferred to Sandpoint, Idaho, in April, 1929, and to Staples, Minn., in December, 1930. In October, 1934, he was assigned to special duties in the office of the vice-president in charge of operations and in the following month he was loaned to the Railroad division of the Reconstruction Finance Corporation where he made studies of maintenance conditions on lines making applications for loans. On June 1, 1935, he was appointed assistant engineer maintenance of way of the Chicago, Burlington & Quincy, with headquarters at Chicago, and on May 1, 1936, he went with the D. & R. G. W. as engineer maintenance of way, with headquarters at Denver, which position he held until his recent promotion.

Mr. Ridgway was born at Lawrence, Kan., on February 23, 1870, and graduated from the University of Kansas in 1892. He entered railway service in June, 1887, as a track laborer on the Denver & Rio Grande Western and at various times between 1890 and 1892 was employed on the same road as axman, chainman, rodman, instrumentman and draftsman. He was appointed assistant chief engineer of the Bellefontaine Bridge & Iron Company in 1893 and the following year was promoted to chief engineer. Mr. Ridgway returned to the D. & R. G. W. in 1895 as assistant engineer and locating engineer and held this position until 1904, when he was appointed general superintendent of the Silverton Northern. In 1905 he again returned to the D. & R. G. W. as office engineer and was later promoted to engineer of bridges and buildings. He was promoted to assistant chief engineer in 1909, and to chief engineer in September, 1923, which position he held until his retirement. Mr. Ridgway is a past director of the A. R. E. A. and has served as chairman of the committee on Wooden Bridges and Trestles and the special committee on the Economics of Bridges and Trestles. In 1922-23, he served as president of the American Railway Bridge and Building Association. He has also served as a director of the American Society of Civil Engineers and as president of the Colorado Engineering Council, and is a life member of the Colorado Engineering Society. He is the author of several books on transportation and transportation problems.

MECHANICAL

Dean F. Willey, mechanical superintendent of the New York, New Haven & Hartford, with headquarters at New Haven, Conn., has been appointed general mechanical superintendent, succeeding the late **Albert L. Ralston,** whose death on April 3 was reported in the *Railway Age* of April 12.

Charles Wesley Graham, whose promotion to assistant superintendent of the car department of the Wabash, with headquarters at Decatur, Ill., was announced in the *Railway Age* of April 12, was born at Athens, Ohio, on September 16, 1884, and entered railway service in January, 1907, as a switchman on the Hocking Valley (now part of the Chesapeake & Ohio) at Nelsonville, Ohio. In 1908 he went with the Michigan Central as a car repairer and was later promoted to general car foreman at Saginaw, Mich. Mr. Graham went with the Pere Marquette in July, 1910, as

Charles Wesley Graham

chief car inspector at Saginaw and a year later he went with the Missouri-Kansas-Texas as general freight car foreman at Sedalia, Mo. He returned to the Pere Marquette in August, 1915, as division general car foreman at St. Thomas, Ont., and in March, 1916, went with the Kansas, Oklahoma & Gulf as master car builder, with headquarters at Muskogee, Okla. In September, 1920, he went with the Wabash as general car foreman at St. Louis, Mo., and later served as division general car foreman at Moberly, Mo., and Ft. Wayne, Ind. In the latter part of 1933, Mr. Graham was advanced to car shop superintendent, with headquarters at Decatur, Ill., the position he held until his recent promotion.

OBITUARY

William Coles Saunders, who retired in February, 1932, as passenger traffic manager of the Norfolk & Western, died on April 9 at Roanoke, Va., after a long illness, at the age of 79.

Charles T. Lee, master mechanic of the Davenport, Rock Island & North Western, died at Mercy hospital, Davenport, Iowa, on April 13, after a brief illness, at the age of 56.

John Franklin Chandler, former special agent for the Pennsylvania and an inventor of several safety and efficiency devices used in railway transportation, died at the Elizabeth (N. J.) General hospital on April 16, after a long illness.

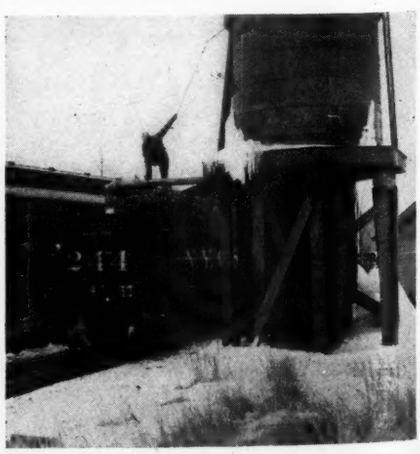
Samuel Higgins, who was general manager of the New York, New Haven & Hartford from April 1, 1904, to January 1, 1912, and a member of the United States Railroad Labor Board during the administration of President Harding, died on April 10 at his home in Devon, Conn., at the age of 81.

Robert Farnham, assistant chief engineer of the Eastern region of the Pennsylvania at Philadelphia, Pa., whose death on April 8 was reported in the *Railway Age* of April 12, was born in Washington, D. C., on December 19, 1877, and attended private schools in Washington and the George Washington University. He was graduated from Lehigh University in 1899 with the degree of civil engineer, following which he served in the engineering department of the District of Columbia for a period of three years on designing and construction of highways and bridges. From May, 1902, to March, 1903, he was employed by an engineering firm in New York City. Mr. Farnham entered the service of the Pennsylvania on March 9, 1903, as a levelman on an engineering corps, and in August of the same year he was appointed assistant engineer of construction and placed in charge of the construction work for the Pennsylvania in connection with the building of Union Station in Washington. On the completion of that project he returned to Philadelphia in the office of the engineer of bridges and buildings as an assistant engineer. On April 1, 1923, he was promoted to engineer of bridges and buildings on that portion of the Pennsylvania east of Pittsburgh. On February 15, 1927, Mr. Farnham was appointed chief engineer of an extensive program of

Robert Farnham

improvements at Philadelphia, including the construction of Pennsylvania station at 30th street. He was appointed assistant chief engineer of the Eastern Region on September 16, 1937, which position he occupied at the time of his death.

* * *



New York, Ontario & Western Ten-Wheeler Takes Water